FOREST SAFETY NEWS

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2020 – A Year of Challenges and Successes

Most of us were happy to ring in 2021 and leave 2020 in the rearview mirror as a notable chapter in the history books. And while we still have some challenges ahead, the road map is becoming clearer to a post-pandemic world. The forest sectors' history of resilience positioned it well to meet the challenges associated with COVID-19, supporting the BC government declaring forestry and silviculture practices as essential services early in the pandemic.

These efforts were supported across the industry and involved a concerted effort by employers, workers, unions, contractors and industry associations working collectively to achieve a common goal. Because of the forest industry's efforts and the priority placed on COVID 19 precautions, there were no known cases attributed to any forestry activity in BC last year. At the same time, an estimated 300 million trees were successfully planted in 2020 under these unprecedented circumstances, which is a remarkable undertaking.

This shared focus and collaboration to achieve a common goal is also evident in the continued progress by industry in improving safety performance. One doesn't have to look back very far in the history books to acknowledge the efforts of our industry to improve its safety performance. In 2005, BC's forest sector was making national headlines on the front page of the Financial Post highlighting forty-two forestry workers deaths in BC that year. One year before, the Forest Safety Task Force, set out a number of recommendations that would fundamentally change how health and safety was managed by the forest industry in BC. To use a quote from Henry Ford, "Coming together is a beginning, staying together is progress, and working together is success." Over the last fifteen years, forest sector stakeholders have demonstrated that when we work together, we can achieve our collective goal of ensuring every forestry worker goes home safe everyday. With each passing year, industry has achieved new milestones in improved safety performance and has demonstrated our goal of achieving no-work related deaths is within reach. In 2020, there was one direct harvesting work-related death. While this number represents the lowest number of work-related deaths on record, it also represents one individual that did not make it home to their family. I extend our heartfelt condolences to the families, friends and colleagues of the deceased.

As you read the articles in this issue of FSN, take some time to reflect and celebrate our success and progress and then ask yourself what each one of us can do in 2021 to achieve our goal of Ensuring Every Forestry Worker Goes Home Safe Everyday.

On behalf of BCFSC, I would like to thank you for your individual and collective efforts to ensure that everyone goes home at the end of every workday and wish you a healthy, safe and prosperous 2021!

Our industry's safety success is dependent on your continued commitment and support.

Sincerely,

Rob Moonen, BCFSC CEO

Welcome to the Spring edition of Forest Safety News, covering news about safety topics in forestry. This is YOUR safety newsletter. We look forward to your input and feedback! Email the editor at **editor@bcforestsafe.org** or call **1-877-741-1060**.

What's Inside:

What's New

Take a look at the latest list of what we have to offer since December 2020. Below you will find direct links to safety alerts, industry-specific resources, industry information and more for you to download and/or share with employees, industry and safety peers. We've also posted this information on Facebook, Instagram, LinkedIn and Twitter so make sure to follow us on social media and stay up-to-date with the latest news.

ELD Video – Check out the new "Busting the Myths about ELDs'" video and hear log truck drivers and wood fibre haulers talk about their experiences with electronic logbook devices.

New Faller Training – Three new faller training courses are scheduled for 2021. March 2–April 3, 2021, April 20–May 22, 2021, September 27–October 29, 2021. To register, contact the College of the Rockies at 250-344-5901.

SAFE Companies Online Audit Tool – Our dedicated resource page and instruction videos will help you learn how to use the new online system.

Resource Road Driver Program – New online training will include knowledge-based learning which will ensure a foundational base of knowledge to support the in-field training which focuses on essential driving skills.

Training Calendar – Take a look at the 2021 Training Calendar.

Safety Alerts – Here are the latest alerts from BCFSC and industry.

- BCFSC Safety Alert of the Month - **Learning from Past Incidents**
- Industry Alerts
  - **Roadside Hazard: Snow Plow at Work**
  - **First Aid Procedures and Equipment Revisions**
  - **Hazard Alert: Rocks in Logging Truck Loads**
- **Manufacturing Weekly Safety Alert** – Click on the link to see the latest alert

To subscribe to our safety alert emails – Click Here

Industry Links

WorkSafeBC Enews – Subscribe to Insight; WorkSafeBC's policy, regulation and research division e-Newsletter, Health and Safety Enews, Young Worker Enews and more.

Road Safety at Work – Resources, workshops and consulting services to help BC employers and workers build and improve their occupational road safety programs.

Auditor General Report: Management of Forest Service Roads

The Office of the Auditor General of British Columbia has released a new audit report about the management of Forest Service Roads. The audit assessed whether the Ministry of Forests, Lands, Natural Resource Operations and Rural Development managed safety and environmental risks on forest service roads in accordance with its policies. The report includes nine recommendations to help the ministry meet its own expectations for undertaking inspection and maintenance work on FSRs. These recommendations include tracking information required to determine if inspections and repairs are completed on time and developing an approach to ensure that FSRs are adequately maintained. Take a look at the BC Auditor General's Report and watch the overview video featuring Auditor General, Michael Pickup.

Forestry Sector 2021 Conferences and Events

Forest sector events and conferences have been put on ice since the start of the COVID-19 pandemic. Tree Frog Forestry News has been putting together a list of conferences (linked when possible to relevant websites) showing what's been cancelled and what's been rescheduled. Visit this link for the most up-to-date information.

Coming Up Soon:

Council of Forest Industries Virtual Conference, April 8, 2021. Register now.

Wood Products Manufacturing Best Practice Share

Last year the Manufacturing Advisory Group (MAG) expressed a desire to look outside BC to share information and best practices about COVID-19 risk management. BCFSC reached out to Workplace Safety North in Ontario and that alliance inspired the development of the first cross-country Wood Products Manufacturing Best Practice Share.

The initial session was very well-received and the group agreed to meet quarterly to review other topics relevant to both groups.

In 2020, representatives from some wood products manufacturing companies in Ontario and BC met to review and discuss best practices in Lock-out and Mobile Equipment/Pedestrian interface.

> *"There was a silver lining to this pandemic. Our respective provincial Wood Product Manufacturing safety groups determined a collective need to share COVID-19 safety plans, ideas and practices. This partnership has evolved into other risk-reduction and safety idea sharing opportunities addressing many of our industry's significant safety challenges. This has been a great step towards making our operations safer for our employees and contractors."* said David Murray, BC Manufacturing Advisory Group (MAG) Chair and Corporate Safety, HR & Environment Manager for Gorman Group of Companies.

The quarterly sessions scheduled for 2021 will be:

- April 1 @ 10:30am-12:00pm (PST)
- May 20 @ 10:30am-12:00pm (PST)
- September 30 @ 10:30am-12:00pm (PST)
- December 16 @ 10:30am-12:00pm (PST)

Topics are identified based on input from industry. Representatives from BCFSC and Workplace Safety North will work with their manufacturing clients to identify content and presenters that would be of interest and benefit industry.

> *"We are very excited about this new opportunity to share and learn with other wood producers outside of BC. We will be working with other forestry safety associations to expand the network in 2021. The more we can learn from one another and implement best practices on common issues common, the safer our workplaces will be across the country. Industry hazards don't stop at the BC border and neither should learnings."* Cherie Whelan, Director SAFE Companies BCFSC, former resident of Alberta and born and bred in Newfoundland!

If you would like more information, or to be added to the meeting, please email **mag@bcforestsafe.org**

Breaking New Ground in Pellet Plant Safety: Simply and Effectively

British Columbia's wood pellet producers are devoted to running safe operations. In 2014, the Wood Pellet Association of Canada established the WPAC safety committee as a forum for industry participants to share knowledge and to work collectively on solving common safety concerns such as combustible dust management, safe-guarding, working in confined spaces and lock-out procedures. This has resulted in a near elimination of safety incidents, increased worker protection, and an ever-improving relationship with WorkSafeBC. BC Forest Safety Council's ongoing participation in our safety initiatives are integral to WPAC's success.

Recently, WPAC safety committee members realized that despite everyone's best efforts, the industry was still vulnerable to potential catastrophic incidents that couldn't always be prevented by traditional approaches to safety. Members believed that despite all the safety improvements that had been adopted, the potential remained for pellet plants to experience major unwanted events (MUEs) such as explosions fires and fatal accidents.

After some research and with guidance and prompting from WorkSafeBC, WPAC's safety committee decided to pursue a process known as Critical Control Management (CCM) which starts with a procedure known as bowtie analysis.

Plant operators identify various potential MUEs – like fires and explosions – each one of these MUE's forms the centre of a bow tie. Then plant operating, maintenance and safety personnel consider all plausible accident scenarios that could exist around each MUE and then identify critical controls that would prevent the MUE from occurring.

"CCM and bow tie analysis relies on the Swiss Cheese Model -- imagine each piece of swiss cheese having holes and each hole represents a potential safety weakness," explains WPAC's Executive Director Gord Murray. "But if you layer multiple pieces of swiss cheese together, the holes don't line up, they create a collective barrier to safety weaknesses. This is the essence of CCM."

To complete the CCM process, plant management must assign responsibility for each critical control to designated plant personnel, and implement a monitoring and reporting program to ensure continuous improvement.

CCM is already widely used in mining, chemical, and oil and gas industries around the world, but it's new to the wood pellet industry.

WorkSafeBC is a supporter of CCM and so WPAC began working with them to implement CCM plans

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for their member companies' plants. But it became clear very early on that CCM was a complicated process that could not be implemented by simply handing out a manual and issuing instructions to WPAC's members.

"We initially underestimated how much work it would take to implement it at the plant level," says Gord. "So together with BC Forest Safety Council we started reviewing the manuals and developing a program that will help us take our collective safety to a new level."

WPAC and BCFSC struck a project team to assist member companies adopt and implement bow tie-identified critical controls at the site level.

"The bow tie is a great tool because it gives everyone involved a better understanding of how they need to work together to prevent an incident," says Cherie Whelan, the BC Forest Safety Council's director for SAFE Companies and a member of the WPAC-BCFSC project team. "With CCM we can now manage multiple layers of controls into a single process resulting in better safety at every level."

Last year work began on implementing CCM around combustible dust. It was so well-received by the industry that WPAC now has all 14 of its member plants and one MDF facility clamouring to be the first to implement it. Together WPAC and BCFSC, in conjunction with the industry, have developed an implementation schedule with the goal of completing bow ties and critical controls to WorkSafeBC by late 2021.

Two BCFSC Safety Advisors, Bill Laturnus and Tyler Bartels will be providing on-site and online support to all 15 operations in 2021. They will provide education, training and mentoring in the necessary knowledge and skills required to identify the site-specific critical controls. Further support will help the operations develop their internal systems to effectively manage these critical controls to ensure they operate 100% of the time.

"We have identified priority processes to cover in each plant with a primary focus on potential fires and explosions. Presently we are testing that out at two facilities," explains Gord. "Then we will take those learnings and applications to other plants where the preliminary bow ties will be modified for the circumstances in each plant."

"We are hugely gratified by the degree of industry buy-in and the outstanding cooperation amongst all plant operators. WorkSafeBC is keenly interested in our progress and we are diligent in reporting to them regularly," adds Gord.


Photo taken pre-COVID

The initiative has also caught the eye of university researchers. WorkSafeBC is funding a Dalhousie University Department of Process Engineering and Applied Science research project that will build on a comprehensive set of combustible dust bow ties developed by WorkSafeBC and WPAC to facilitate knowledge and transfer it to employees and employers throughout the wood pellet industry in other Canadian provinces and internationally.

"Overall the plan is ambitious, requires a significant amount of effort—and will make our plants safer," says Gord. "Companies will understand their equipment better; workers will be able to operate and maintain that equipment safely; the equipment will be more reliable; and plant managers will know what activities are most important."

Stay tuned for more CCM articles over the coming months as the process is implemented province-wide. For more information contact Gord Murray, **gord@pellet.org**

Defining Combustible Dusts: Does Particle Size Matter?

By Eric Brideau, Industrial Process Safety Group Project Consultant, Jensen Hughes

Many wood materials and by-products are not easily burned in their raw form but may be explosible in dry particulate or dust form due to the reduced moisture content and increased surface area available for reaction and diffusion mechanisms during the combustion process. These materials are known as combustible dusts and can cause dust explosions in processing facilities if the particle size of the dust is small enough to propagate a flame front, there is a means of suspending or dispersing the dust in air or other oxidizing atmosphere, a sufficient quantity of dust exists to achieve the minimum explosible concentration, a source of ignition exists, and there is a sufficient degree of confinement such that damaging overpressure may develop as a result of the rapid increase in temperature associated with the combustion process. If there is no or little confinement, a dust flash fire may occur which can still cause injury or damage to equipment and property.

In a processing or manufacturing facility that handles wood materials, there can be solid particulates and dusts with varying particle size distributions that exist throughout the process, some of which may be combustible dusts that are explosible in dust cloud form. But what exactly is a combustible dust, and how can you determine if combustible dust hazards exist in your facility? Definitions for combustible dust are provided in various codes and technical standards, among other sources, but can vary across these sources making it somewhat difficult to clearly define what a combustible dust is. Most notably, there are some technical standards that use a specific particle size limit as a criterion while others provide a broader definition. For example, combustible dust is defined without a particle size limit in many NFPA standards, such as NFPA 652 (2019), NFPA 68 (2018), and NFPA 69 (2019), as "a finely divided combustible particulate solid that presents a flash fire hazard or explosion hazard when

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suspended in air or the process-specific oxidizing medium over a range of concentrations." Similarly, NFPA 77 (2019) defines a combustible dust as "a combustible particulate solid that presents a fire or deflagration hazard when suspended in air or other oxidizing medium over a range of concentrations, regardless of particle size or shape." OSHA also uses a similar definition to NFPA 77 with slightly different wording but emphasizes that a dust can be combustible regardless of size, shape, or chemical composition. The definition provided in NFPA 499 (2021), however, uses a particle size criterion and defines combustible dusts as "dust particles that are 500 micron or smaller (i.e., material passing a U.S. No. 35 standard sieve as defined in ASTM E11-17), and present a flash-fire hazard or explosion hazard when dispersed and ignited in air." Similar definitions with a 500-micron particle size limit are used in the U.S. National Electrical code (NFPA 70, 2020) and the Canadian Electrical Code (CSA C22. 1-18).

Industry specific NFPA standards also exist that provide slightly different definitions for the specific combustible dusts handled. For example, NFPA 664, which is an industry standard specific to the prevention of fires and dust explosions in wood processing and woodworking facilities, does not provide a definition for combustible dust and instead provides a definition for deflagrable wood dust; however, the term combustible dust is used interchangeably with deflagrable wood dust throughout the standard. NFPA 664 defines deflagrable wood dust as "wood particulate that will propagate a deflagration flame front, when suspended in air, or the process-specific oxidizing medium, in sufficient concentration, thus presenting a deflagration hazard." Similar to many other technical standards that provide general definitions for combustible dust, NFPA 664 does not specify a particle size limit when defining deflagrable wood dust.

Although a particle size limit of 500 microns is not used as a criteria to define a combustible dust in many of the relevant NFPA standards, such as NFPA 644 and NFPA 652, these standards explain that, typically, it is unlikely that particulates will be combustible when the particle size is greater than 500 microns due to the small surface-to-volume ratio. It is also recognized in these standards, however, that when particles deviate from a spherical shape, such as for flat platelet-shaped particles, flakes, or fibers with lengths that are large compared to their diameter, they may not pass through a 500 micron sieve but could still pose deflagration or explosion hazards. In reality, there is no single particle size limit that can define combustible dusts as chemical composition, in addition to physical parameters such as moisture content and particle shape, effect the upper limit of the particle size in which a given dust will be combustible. Therefore, from a dust explosion prevention and mitigation perspective, a definition of combustible dust that does not define a particle size limit is more appropriate for the identification of combustible dust hazards so that potential hazards are not erroneously screened out from further hazard analysis or risk assessment based on particle size. For example, if sieve analysis is used for preliminary screening of potential combustible dusts based on the percentage of material that passes through a 500 micron sieve, a combustible material with a low percentage capable of passing through a 500 micron sieve could be wrongly classified as non-combustible even though the particulates are small enough to propagate a flame front and may be explosible in dust cloud form. If it is assumed that no hazard exists from the material during the hazard identification stage, further evaluations will likely not be performed to determine the prevention and mitigation measures required to manage the existing process-specific risks, which may leave process equipment and building areas vulnerable to dust deflagrations or explosions.

So, if combustible dusts can't be definitively identified based on particle size, how can you determine whether the specific wood materials handled at your facility present combustible dust hazards and are explosible in dust cloud form? As a starting point, the materials should be tested at various locations throughout the process and facility based on an informed dust sampling and testing strategy and using standardized equipment and procedures such as those developed by the American Society for Testing and Materials (ASTM). By testing the dusts at your facility, you can determine whether your dusts have the potential to cause an explosion, as well as characterize the ignition sensitivity (i.e., how easily the dust is ignited) and explosion severity (i.e., how violently the dust will react) of the combustible dusts. Once the combustible dusts within your facility are characterized, a Dust Hazard Analysis (DHA) should be performed to identify the process- and equipment-specific hazards and to ensure that these hazards are being managed in accordance with the applicable codes, standards, and engineering guidelines with respect to explosion safety requirements. A DHA is a systematic review of potential fire, flash fire, and explosion hazards associated with combustible dusts that will help to ensure that equipment is installed in compliance with good engineering practice guidelines and that a proper level of protection exists to prevent combustible dust explosions from occurring and mitigate the severity and consequences of a dust explosion should one occur.

CANADIAN BIOMASS

Dryers Equipment Features Pellets

Key takeaways from WPAC's Belt Dryer Symposium

January 20, 2021

By Fahimeh Yazdan Panah

A view of the bed dryer infeed at Pinnacle's Williams Lake, B.C., plant, showing the infeed conveyor and metering bin supplied by Continental Conveyors. Photo courtesy Pinnacle Renewable Energy

The Wood Pellet Association of Canada (WPAC), in co-operation with the BC Forest Safety Council, WorkSafeBC and media partner Canadian Biomass, held the Belt Dryer Symposium on Nov. 25, 2020. As belt dryers have become more common, the pellet industry has experienced several safety incidents over the past few years. The purpose of the Belt Dryer Safety Symposium was to share the learnings from these incidents and for individual operators to share in-house safe operating procedures with their industry colleagues.

Over 70 participants, including pellet producers, dryer manufacturers, insurance companies, universities, fire detection equipment suppliers and WorkSafeBC, attended the event. The workshop was moderated by Fahimeh Yazdan Panah, WPAC's director of research and technical director.

The symposium included presentations from all the operators of belt dryers in British Columbia. Steven Mueller, director of health and safety at Pinnacle Renewable Energy, and Nathan Bond, plant superintendent at Skeena Bioenergy, described their dryers, energy systems, the safety incidents they experienced and the results of their post-incident investigations. Jimmy Boudreau, plant manager at Canfor, presented their dryer operating procedures in Fort St. Johns and Chetwynd. Comparisons were done between direct versus indirect energy systems and Bill Laturnus, senior safety advisor at the BC Forest Safety Council, examined the use of process safety bowtie analysis as a means of systematically identifying and managing critical controls.

All the incidents that were discussed had occurred in direct-fired dryer systems. The key learnings from the speakers on some of the potential causes for incidents included:

- Investigation of some incidents showed that the contributing factor in one incident was believed to be loose debris from cleaning activities picked up in air stream, blown through burner, and ignited before being deposited on fibre mat on belt. Smolder eventually burned through the belt and was then recirculated by air flow igniting further smolders.
- In another incident, strong belief shared that the recirculation of air was a significant contributor to the build-up of flammable deposits, as well as a prime source of ignition as small bits of material could be blown into the airstream through the burner and redeposited on the dryer bed.
- Another potential cause included introduction of ignition source in fibre stream, or foreign material entering air intake and being ignited by a burner.
- Some of the incidents were not primarily dryer incidents but turned into one. One hammermill deflagration incident was likely caused by a foreign object creating sparks within the hammermill, possibly a rock or metal contaminant. All other potential causes were ruled out by investigation. In a conveyor deflagration, the entire system was inspected for possible ignition source, but no cause was identified.
- In one incident, sparks from the fire were not detected by the spark detection system and the temperature sensors above the belt were not affected by the fire's heat.

A number of action items were executed to address the findings from these incidents. They included:

- Engaging professional fire investigators to assist in investigation and provide recommendations
- Bringing dryer manufacturers' representatives onsite to review and approve new prevention and mitigation measures
- Increasing dryer cleaning frequency and improving cleaning practices
- Adding mesh screens in post burner airflows to catch sparks or debris
- Increasing dryer purge cycle to clear out ducting before restarting burners
- Adding additional deluge in recirculating ducting for fire suppression
- Adding man doors to allow for better cleaning and firefighting access
- Re-programming fan motors to immediately stop in upset conditions to prevent further circulation of smolders/sparks
- Re-engineering the air flow ducting and stacks to remove the recirculation air ducting system,
- Conducting Process Hazard Analysis (PHA) with process safety experts on drying systems during removal of recirculating air system
- Installing infrared cameras to detect/shut down the dryer if hot spots are found in incoming fibre
- Resetting HMI to alarm/shutdown/deluge on belt temperature increases

At the end of the symposium, participants decided to form a Belt Dryer Working Group to review the past incidents and lessons learned for safer uses of belt dryers in pellet industry.

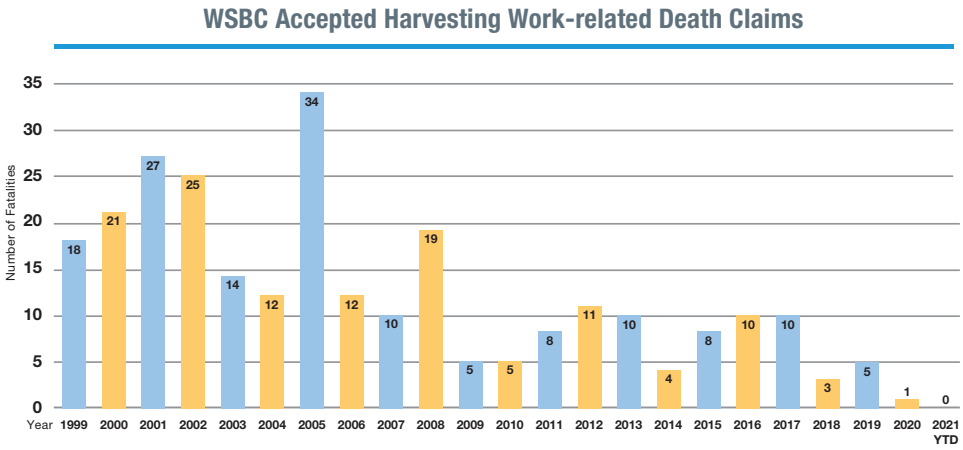
Anyone seeking more information or interested in joining the working group should contact Fahimeh Yazdan Panah, WPAC's director of research and technical development:

Tel: **1-778-990-2656** Email: **fahimeh@pellet.org**

Work-Related Deaths & Injuries

Recent work-related incidents reported to WorkSafeBC

The following sample of work-related incidents recently reported to WorkSafeBC may help prevent similar incidents in your workplace.



This information represents the number of work-related deaths by year in BC, up until January, 2021.

HARVESTING

Injury: Upper body injuries (1 worker)
Core Activity: Log hauling / Integrated forest management
Location: Vancouver Island/Coastal BC
Date: 2020-Dec
A worker was assisting the operator of a self-loading log transporter line pulling logs roadside. The worker was struck by the transporter's grapple.

Injury: Multiple injuries
Core Activity: Integrated forest management
Location: Interior BC
Date: 2020-Dec
A worker was using a skidder to access another piece of equipment when the skidder left the skid trail and rolled down a slope.

Injury: Puncture wound, abrasion (1 worker)
Core Activity: Manual tree falling and bucking
Location: Vancouver Island/Coastal BC
Date: 2020-Dec
A manual tree faller was cutting second-growth timber in preparation for the construction of a forestry road. They made the falling cuts in a tree (15 inches in diameter), then moved to the side hill as the tree began to fall. As they watched the tree go over, the top portion of a dead tree rooted adjacent to the falling tree broke off and struck the faller. First aid was administered on site, then the worker was transported to hospital in the supervisor's truck.

Injury: Bruising and soreness of arm
Core Activity: Logging road construction or maintenance
Location: Vancouver Island/Coastal BC
Date: 2020-Nov
During maintenance work along a resource road, a vehicle being used for transport of explosives drove off the road. The driver was treated by the first aid attendant, then transported to a medical facility.

MANUFACTURING

Injury: Close call
Core Activity: Sawmill
Location: Interior BC
Date: 2021-Jan
A fire occurred at a sawmill when an arbor bearing in a saw-box of a 20ft planer seized during operation. The fire detection and suppression system functioned as designed and the fire in the planer was extinguished by the automated system. A secondary fire, which occurred in a partition wall adjacent to the planer, was put out by workers on site. The local fire department responded to overhaul and secure the fire.

Injury: Close call
Core Activity: Wood pellet manufacture
Location: Northern BC
Date: 2020-Dec
A deflagration event occurred in one of the pelleters (wood pellet maker). No fire damage or injuries occurred.

Injury: Burns (3 workers)
Core Activity: Pressed wood product manufacture
Location: Northern BC
Date: 2020-Nov
An explosion event at a wood pellet plant caused significant damage and injured three workers (one of them a young worker). The local fire department extinguished the fires.

Injury: Close call
Core Activity: Sawmill
Location: Interior BC
Date: 2020-Nov
A fire started in the shavings bin in the fuel storage area of a sawmill. The local fire department attended the scene.

Injury: Injuries to fingers
Core Activity: Planing mill
Location: Lower Mainland
Date: 2020-Nov
A worker's hand contacted the rotating head of a planer when the worker tried to clear a piece of wood.

Injury: Injuries to leg
Core Activity: Planing mill
Location: Lower Mainland
Date: 2020-Nov
A new worker was trying to remove a piece of lumber that had fallen off a lateral infeed machine when the worker's pant leg was caught in a rotating sprocket.

Injury: Lacerated arm
Injury: Close call
Core Activity: Wood pellet manufacture
Location: Interior BC
Date: 2020-Nov
A fire started inside the closed pellet fibre conveyance system, resulting in deflagration and a dryer fire. Fire suppression systems were successfully activated. The fire department attended and released the scene.

Injury: Undetermined injuries
Core Activity: Veneer or plywood manufacture
Location: Interior BC
Date: 2020-Nov
A worker was injured when the forklift they were operating failed to navigate a right-hand turn and ran into a structural support of the building.

TRANSPORTATION

Injury: Undetermined injuries
Core Activity: Log hauling / Integrated forest management
Location: Lower Mainland
Date: 2020-Dec
A worker was driving a loaded logging truck down an 18% grade when the truck went out of control. The worker jumped from the truck and was found about 15ft behind the truck, which was abruptly stopped by a rocky outcrop.

Injury: Fatal
Core Activity: Barge, tug, or other water transport of goods / Integrated forest management
Location: Northern BC
Date: 2020-Nov
A worker was operating a tugboat in a remote marine forestry operation. The tug was reported to local authorities as being adrift and unoccupied. A water and air search was immediately initiated by the Coast Guard and police. The worker is missing and presumed drowned.

New SAFE Companies online tool for Small Employers and Individual Owner Operators

In the last Forest Safety News, we told you about a new online SAFE companies audit tool we were rolling out for our smaller employers. The tool is now live and ready to use. We've had some great feedback from early adopters and know this tool will be very useful.

Check out this short introduction video showcasing the new SAFE Companies Audit tool.

Some key features of the new system include:

- Courtesy reminders about your SAFE Companies audit due date. You'll get these at 45, 30 and 15-day intervals before your audit due date.
- Audit forms tailored to your company size.
- A faster, more efficient way to enter your audit information.
- A "drag and drop" functionality to upload your audit information.
- An alert process to flag missing information.
- You can work on your audit at your convenience. You can start the online audit process by entering some data with your email address and hit save. You will be sent an email with a link to the unfinished form so you can complete it in your own time.
- The tool is available 24/7.
- An automatic email notification to inform you the audit was submitted successfully.

We have developed a resource page and a series of short instruction videos to help you learn how to use the system. We have also developed a step-by-step instruction PDF you can download and use as you are completing the online audit.

Our SAFE Companies webpages have been updated with the audit tool links. We will also be sending direct links with our SAFE Companies audit communications to get the word out.

COVID-19 restrictions have limited the number of staff members we can have in the BCFSC office. Receiving and processing paper audits has been challenging and the process has become slower and more time-consuming. Using the online tool will not only help you get your audit done faster but it will be processed more quickly and you will have results sooner than submitting them in paper-form.

If you have any questions, or need any help with your online audit, please contact us during regular working hours at **1-877-741-1060** or by email **safeco@bcforestsafe.org**

Safety Meetings

By Tyler Bartels, BCFSC Safety Advisor


Photo taken pre-COVID

Importance of Completing Safety Meetings

Safety meetings are an important, valuable and productive tool to communicate, engage and deliver messages to your employees. The safety meeting should be a tool used in your health and safety program to get your employees thinking about safety and encourage them to participate in health and safety programs. Safety meetings are not only an important way to provide information to workers, but they also give employees a forum to provide feedback and information. Employees should be encouraged to share ideas and provide suggestions to prevent incidents and minimize work-site hazards.

Regular safety meetings will keep employees up-to-date on company news and review enhancements to health and safety programs such as updated safe work procedures. They provide a collective setting to review past incidents, near misses and safety alerts and inform workers of any recent incidents with a chance to discuss adjustment to help prevent re-occurrences. Safe work practices change throughout the year relevant to the season or different stages of work activities and projects. Regular safety meetings are the opportune time to discuss relevant and important topics with employees and provide them with additional safety information based on the time of year or changes in work-site activity.

How to make your Safety Meeting Effective

As valuable as safety meetings can be, they can also be ineffective if managed incorrectly. To ensure safety meetings are providing the best use of people's time and to keep the meetings on track, there are several steps to consider.

1. Take time to prepare for the meeting. Consider picking a relevant topic and finding some valuable information to share with employees. Review past incident information or look for relevant safety alerts to share with employees. Pick something relevant from your health and safety program such as a safe work procedure or other safety-related document to review with employees like a crew talk sheet.

2. Put yourself in the worker's shoes. Consider the most appropriate time and place to hold a meeting so they can retain the information. Depending on the work environment, shift schedules and location of the employees, it can be difficult to hold safety meetings. Try to plan the location, length and timing so the employees are most engaged. Pick a comfortable location, and try to keep the meeting short, around to 10-15 minutes, held at the beginning of the workday or shift when crews are fresh and in the right mindset to start the day.

3. Lastly, consider how to deliver your meeting. If you are only reading from a sheet of paper or passing out a piece of paper for the workers to read, how engaged do you think they will be and how effective do you think the outcome will be? Try and engage employees as much as possible. Start discussions, share personal stories and experiences or ask workers to share their stories and experiences. Ask questions and be open to new ideas. Maybe even consider asking a worker to run the safety meeting to change things up and get workers to take more ownership and possibly provide more feedback.

BCFSC has several resources to help get you prepared to talk about safety with your crews. Visit our website to access crew talks sheets, safety alerts, healthy worker resources and more.

Training Supervisors for Success

Front line supervisors are critical in all operations. They provide leadership, expert instruction and problem-solving ability. It is challenging for supervisors to respond to the wide variety of workplace situations, so how can forest companies help and support supervisors in these demanding situations?

One way is to ensure all supervisors are equipped with the basics before they start – all the knowledge, skills and attributes needed to be successful in the job. A comprehensive list of forest industry supervisor competencies gives employers a baseline to train and evaluate their supervisors. Elevating all supervisors to a base standard of competency criteria will improve operational and safety performance significantly.

The BCFSC is working with two industry groups to build training materials to help supervisors reach a foundational level of skill and knowledge. The Manufacturing Advisory Group (MAG) and the BC Safe Forestry Program (SAC) are currently updating existing training materials and working to identify the key competencies for successful supervisors.

The current modules of BCFSC's three Forest Supervisor Training courses focuses on forestry operations but work is underway to tailor this training to mill supervisors. Representatives from MAG are reviewing and providing input to adapt BCFSC's existing supervisor training resources for mill settings. The concepts of due diligence, communication and leadership will be maintained using manufacturing examples and scenarios to make the information more relevant to mill workers.

A SAC sub-committee of experienced silviculture managers and supervisors are working to build units of competency specific to tree planting operations as well as confirming general competencies needed by all supervisors. This process will result in tailored silviculture assessment forms managers can use to assess new or experienced supervisors. If any gaps are identified, online and classroom training resources will be developed.

Keep an eye on the BCFSC training site or follow us on Facebook for the updated information on these new training offerings and assessments.

New Online Mechanized Harvesting and Yarding Assessments and Training

Individual worker assessments are an important part of all safety programs. Supervisors often assess the operation by conducting a high-level overview of the phases and assume that if things are going well at each level, each individual operator or worker must also be doing well and have what they need to do the job. However, spending one-on-one time with a worker is very valuable as it enables a supervisor to get detailed information that may be missing from the high-level overview. This is where new worker competency assessment tools come in. These tools support busy supervisors with an organized and efficient process to easily conduct worker assessments.

The BCFSC, along with industry experts, have developed worker assessment forms specific to mechanized harvesting and yarding worksites. These forms are easy to complete using a checklist-style format perfect for use on tablets and mobile phones. The fillable PDF assessment forms and related training are now available on the BCFSC website.

This dedicated webpage also features a short video explaining how to best use the assessments at the workplace. There are also links to training materials if any gaps in knowledge, skills or attributes are found during the assessments. Free, online training is available through BCFSC's Learning Centre. Completed training programs will be issued a certificate of completion. There is also downloadable training material available for companies who prefer to conduct their own training but want to follow the industry standard.

The Basic Forest Worker assessment should be used for new workers to the forestry. This basic assessment combined with a job specific assessment will provide a complete overview of the job requirements. For example, if you are assessing a brand-new skidder operator - complete the Basic Forest Worker assessment first to ensure the operator has a good foundation of knowledge such as common hazards and other logging fundamentals. Once they have the basic knowledge, move onto the more technical assessment for Skidder Operators. Assessments and training are available for the following jobs:

- Basic Forest Worker
- Yarding
  - Grapple Yarder Operator
  - Hook Tender
  - Landing/Utility Person
  - Chokerperson
  - Rigging Slinger
  - Tower Operator
- Mechanized Harvesting
  - Feller Buncher Operator
  - Skidder Operator
  - Processor Operator
  - Hydraulic Log Loader Operator
  - Forwarder Operator
  - Hoe Chucker Operator

Assessor and trainer information is also available online to help supervisors, worker trainers or those completing one-on-one assessments.

If your company uses these tools, we would love to hear from you. Your valuable feedback is necessary to keep the information current and relevant. Contact us at **training@bcforestsafe.org** with any suggestions or ideas for improvements.

Hazard Recognition, Risk and Control Training

Last August, the BCFSC was approached by Conifex Timber Inc. and asked to deliver Hazard Recognition, Risk and Control Training. While various training materials are available, at this point there is no standardized training for our industry. The Manufacturing Advisory Group (MAG) is currently working to develop some training for 2021. Updates on the MAG training are available on our website.

Our training team engaged a consultant to prepare content and deliver the training. It is focused on basic hazard identification, risk assessment and controls in a sawmill and manufacturing settings, tailored to Conifex's requirements. We also used this project as an opportunity to test out a new webinar system.

In January 2021, we successfully delivered eight hours of training through the system with lessons learned throughout the process regarding the type of learning platform and the content. Our key takeaways were to stick to the basics, add more depth to the Field Level Hazard Assessment process and add more interactive activities. These takeaways will be used to improve future deliveries. The material will be shared with MAG to expedite the development of their training and help tailor content that meets manufacturing needs.

Kristen Stinson, VP & GM, Corporate Services, Conifex Timber Inc. said "Continuous learning in effective hazard identification, assessment and control is an essential part of any prevention program. This course offers a practical and consistent application for workers to control hazards so that everyone, in any role, can go home safely."

Progress on the MAG course will be published in future editions of the Forest Safety News.

Risk Assessment and Using a Risk Matrix on Resource Road

By Overlanding BC


Photo provided by Overlanding BC

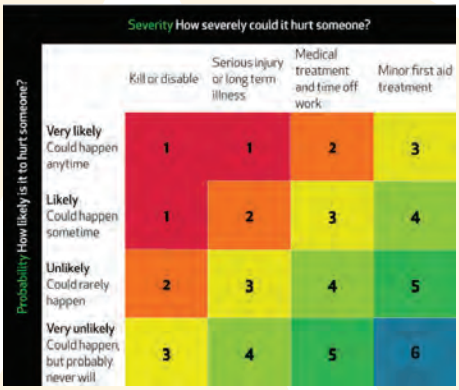
Driving on resource roads presents drivers with a unique set of challenges like road construction, the time of year, other (potentially larger) vehicles on the road, visibility and obstacles like uneven terrain, wash-outs and water accumulation. These roads require drivers to understand the risks involved and have the ability to evaluate that risk using various methods. One method is doing a Hazard Assessment using a Risk Matrix. The following is an example an incident that uses a Risk Matrix to aid in a successful outcome for the worker.

In this situation, a person was riding an ATV when they came across a large puddle they needed to navigate. They did the right thing - they stopped, assessed the situation and then measured the depth of the puddle. The worker even took extra precautions by calling a supervisor to their location to double check that they could navigate through the puddle successfully. They both established that it was safe to proceed and the worker rode the ATV slowly through the puddle without incident.

On the return trip, they encountered the same puddle but this time they were on the opposite side. They proceeded through it again slowly as they had already done so successfully, earlier that day. Either the puddle had changed throughout the day or it was deeper on one side than the other. Half-way through it, the ATV began to sink and tip to one side. Although they made it to safety, the ATV had to be towed out and sent in for maintenance and repairs.

The assumption that the puddle was in the same state, from the first encounter to when they came across it from the other direction was an example of an inadequate Hazard Assessment. This assumption led to an incident, which cost the company down time for a worker and a vehicle. It also could have led to injury to the worker and potential workdays lost.

If the worker had used a Risk Matrix in their hazard assessment, the outcome would have been different for their return trip. Using the matrix, the puddle situation rates as a 2. (See Illustration). The situation warranted a review and the driver should not have assumed the conditions were favourable in both directions. Consider how the risk would change if they were in a pickup truck. The rating, may, or may not decrease depending on the risk exposure present.



Evaluate what controls and / or Substitutions are necessary.

Rating 1: Stop work; consult supervisor; seal off work area; determine control(s).

Rating 2: Stop work; consult supervisor; determine control(s) and safe work procedures.

Ratings 3/4: Contact supervisor; follow safe work procedures; determine additional control(s) required.

Ratings 5/6: Strictly adhere to safe work procedures.

The exposure to risk is for an ATV rider is high, especially when there are unseen dangers such as cross-ditches, cambered, or crowned surfaces, pools or puddles on the road, slumps or fall-off of the road surface, etc.

Resource Road Drivers require extra diligence when assessing the road ahead. To keep our exposure to risk to a minimum, the Risk Matrix should be understood and fully utilized even when engaging in a task that may seem routine and familiar. There is always a possibility that something unexpected might arise and lead to an unanticipated event. When risk is not evaluated and understood, the outcome can often be undesirable.

Find out more about Risk Matrices & Risk Assessment.

Early Adopters of ELD speak about their experiences in new ELD Video

As of June 12, 2021, commercial vehicles that cross provincial borders will be required to be equipped with an ELD. To comply with this regulation, ELDs must be verified and certified by a third-party certification body which is accredited by Transport Canada.

In response to these changes to the Commercial Vehicle Drivers Hours of Service Regulations, BC will need to decide what the requirements will be for CMVs operating within the province.

What is an ELD?

An electronic logging device (ELD) is electronic hardware that is connected to the electronic control module of an engine of a vehicle. It monitors the engine to capture data on whether the engine is in operation, if it is moving, distances it has driven and duration of engine operation. It then interfaces with software that can be displayed on various devices so that the driver can view information in the vehicle, while a carrier or dispatcher can also view the same information remotely.

What you need to do

- Stay informed on Transport Canada's requirements by frequently checking Transport Canada's webpage, which has resources and information about ELDs.
- Fleets with existing ELDs or electronic on-board recorders should connect with their suppliers regarding Canadian certification of their devices. Note: as of November 2020, there are no certified ELD models and there is only one certification body accredited by the Minister of Transport.
- Start preparing your implementation plan. It's not too early to begin assessing the impact implementation of a new technology will have on fleets.

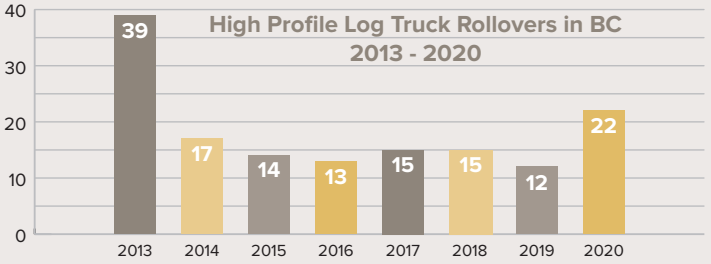
To view the new "Busting the Myths about ELDs" video and hear log truck drivers and wood fibre haulers talk about their experiences with electronic logbook devices.

Forest Sector Commercial Vehicle Safety

A new committee has been formed to look at opportunities to improve commercial vehicle safety within the BC Forest Sector. Although we have seen a steady increase in safety improvements, commercial vehicles continue to be an area of focus. The committee was formed in late 2020 with the objective to provide an effective mechanism between the BC forestry industry and the Ministry of Transportation and Infrastructure (MOTI) in addressing safety issues, building a stronger working relationship, providing efficiencies for resolutions and communications, and exploring safety improvements for commercial vehicles operating within forestry.

Group members include representatives from MOTI, Commercial Vehicle Safety Enforcement, Forest Industry Associations, Forest Industry Safety Groups, FP Innovations and the BC Forest Safety Council. The group has met twice since its initiation and is currently focussed on several key issues specific to the log hauling sector. These include general road safety, antilock braking system performance, electronic logging devices (log books), and electronic stability control.

For more information please contact Dustin Meierhofer, RPF, Director- Transportation and Northern Safety, BCFSC - **dmeierhofer@bcforestsafe.org**



Incidents reported above apply to highways, municipal and public roads.

Members:

Organization	Representative(s)
BCFSC	Dustin Meierhofer Trish Kohorst
CVSE/MOTI	Samantha Eburne Jan Lansing
Trucking and Harvesting Advisory Group	Ken Pedersen
Log Truck Technical Advisory Committee	Greg Munden
Coast Harvesting Advisory Group	John Shearing
Interior Logging Association	Todd Chamberlain
Truck Loggers Association	Bob Brash

Resource Road Driver Training Updates

Operating motor vehicles, especially on resource roads, is the highest risk activity most resource sector workers do during a workday. The Trucking Harvesting Advisory Group data shows Motor Vehicle Incidents (MVI's) on resource roads are the most common incident type in forestry. Given this, appropriate training of workers using resource roads is critical. A cross sector of industries, including gas and oil and forestry have collaborated to update the resource road driver program, including a range of delivery models to support training for safe operation of light trucks on resource roads.

The new online training will include knowledge-based learning which will ensure a foundational base of knowledge to support the in-field training which focuses on essential driving skills.

NEW Resource Road Safety Training Course (RRST) - One-day in-field training course

Accreditation: BCFSC Certificate of Completion – Resource Road Safety Training Course

- Blind spots
- Pre-Trip Inspection
- Emergency manoeuvers
- Vehicle dynamics
- Driving techniques for safe operation on resource roads
- Radio use and resource road procedures
- Driving strategies for deactivated roads (optional)

REVISED Resource Road Driver Training Course (RRDT) – Two-day in-field training course

Accreditation: BCFSC Certificate of Completion – Resource Road Driver Training Course

- Day One (same as RRST one-day course)
- Day Two
  - Vehicle recovery
  - Trailer towing
  - Cargo securement
  - ATV/UTV loading/unloading
  - Driving strategies for deactivated roads (optional)

PILOT Train the Trainer Program (RRDT -Train the Trainer) – Three-day in-field training course

Train the Trainer Accreditation: BCFSC Certificate of Completion – Resource Road Driver Internal Trainer (RRDIT)

Participants in this course are trained as 'internal trainers' to provide training to their own employees utilizing BCFSC resources.

Post pilot (implementation 2022)

- Employees who are trained by a recognized Internal Trainer and meet the course requirements will receive the BCFSC Certificate of Completion.

Learn more about the Resource Road Driver Program.

Resource Road Orientation Video – Work Here, Play Here, Stay Safe Here

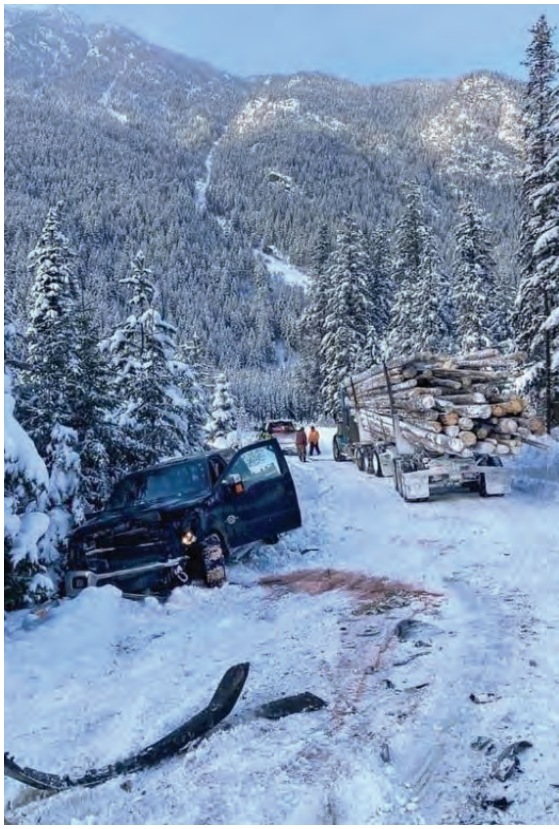
The safety of all resource road users is a key issue throughout BC. During the pandemic, there has been a large increase in public use of resource roads as people are opting for local recreation (camping, fishing, hunting, snowmobile etc.) for leisure activities / vacations.

To assist all users in understanding the risks associated with driving on resource roads and support safe use, a cross section of organizations has teamed up to support an **Orientation to Resource Roads Video** - *Work Here, Play Here, Stay Safe Here*. Contributors to this project include Mosaic Forest Management, Ministry of Forests Lands and Natural Resources, Coastal Gas Link, Canfor, Interfor, Weyerhaeuser, Gorman Bros, Tolko Industries, BC Timber Sales, Sinclar Group, Conifex, AdventureSmart (Search and Rescue).

This informative video will be available on the BCFSC website and integrated into the Resource Road Driver Program and the Professional Industry Driver Program. BCFSC will also share the video with recreational groups and promote it through appropriate media outlets.

Supplementary resources will be developed to support the training of resource road use and radio calling procedures.

If you would like to contribute or would like to learn more about this project, please contact the Transportation Safety Department at **1-877-741-1060**.



Professional Industry Driver Program

Keen interest carries on in the Professional Industry Driver Program. Mentor companies, like Lost Creek Holdings, and mentors like Partner Schielke continue to make the program a success by contributing their time and support to new drivers.

Kathleen Joseph recently completed the Professional Industry Driver Program delivered at the College of New Caledonia (CNC) in Ft St James. Pictured with her mentor Partner, who obtained his Professional Log Truck Driver Endorsement, Kathleen was able to gain valuable insight and knowledge from Partner from his extensive experience as a professional driver. As a resident of Ft St James, Kathleen knew she wanted to become a log truck driver and the CNC program provided that opportunity.

The impact of COVID-19 on businesses in small towns compelled Doug Flynn to re-evaluate his career and make a change. He mentored with Stardust and is now employed as a full-time driver with the company after exemplary progress through the mentor program. Doug states "What other program prepares you to walk out the door after 17 weeks to a job where you can make over $80,000 a year? "

BCFSC is working with several colleges throughout BC to deliver similar programs in 2021. The program is intended to support the training of Professional Industry Drivers to the standards identified by the Log Truck Technical Advisory Committee and the Wood Fibre Hauling Safety Group. The Transportation Safety Department is working with the Trucking Harvesting Advisory Group (TAG) members to engage with contractors to use the same tools to train drivers with the support of licensees.

For more information about the Professional Industry Driver Program.

Improving Log Hauling Safety

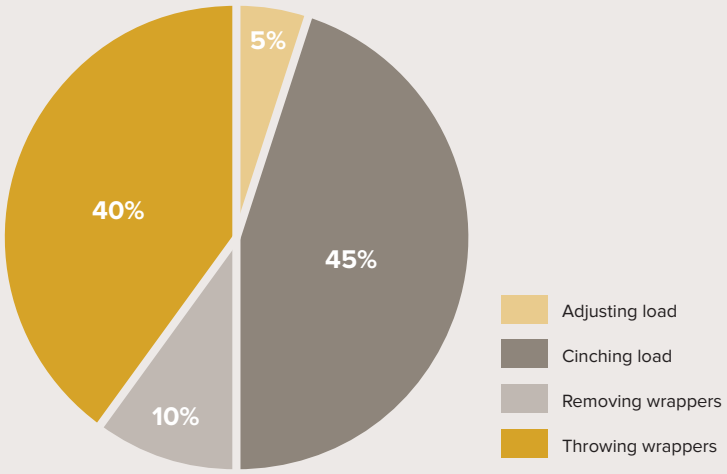
Load securement in relation to hauling logs is a necessary and extremely important task. However, this activity can result in short-and long-term injuries to log truck drivers. Upper body injuries to the back and shoulders are the most common injury type and can be serious in nature. But there are new and innovative ways to help reduce the risk of injury during load securement.

A new industry-based safety group, the Load Securement Working Group, was formed to help support licencees, contractors and drivers. The objective of the group is to collaboratively identify and engage in initiatives that reduce the risk of injuries to log truck drivers while securing log loads.

The working group is focusing on injury risk during loading and unloading operations in both routine and non-routine operations. The group will evaluate assessment of risk, safe work procedures, training, existing and new technology, alternative practices and procedures and potential impacts to industry. Communications and recommendations of the group will be reviewed by the Log Truck Technical Advisory Committee (LTTAC), the Trucking and Harvesting Advisory Group (TAG), the Coast Harvesting Advisory Group and the Forest Industry Forum (FIF).

For more information please contact Dustin Meierhofer, RPF, Director- Transportation and Northern Safety, BCFSC - **dmeierhofer@bcforestsafe.org** or visit the LSWG webpage.

Load Securement Injuries



Members:

Organization	Representative(s)
BCFSC	Dustin Meierhofer
Trucking and Harvesting Advisory Group	Ken Pedersen
Bueckert Logging/Log Truck Technical Advisory Committee	Peter Bueckert
Coast Harvesting Advisory Group	John Shearing
WorkSafe BC	Tim Pride
FP Innovation	Mithun Shetty
Timber Services Inc.	Jerry Mooney

Standardized Faller Inspection Form for Industry

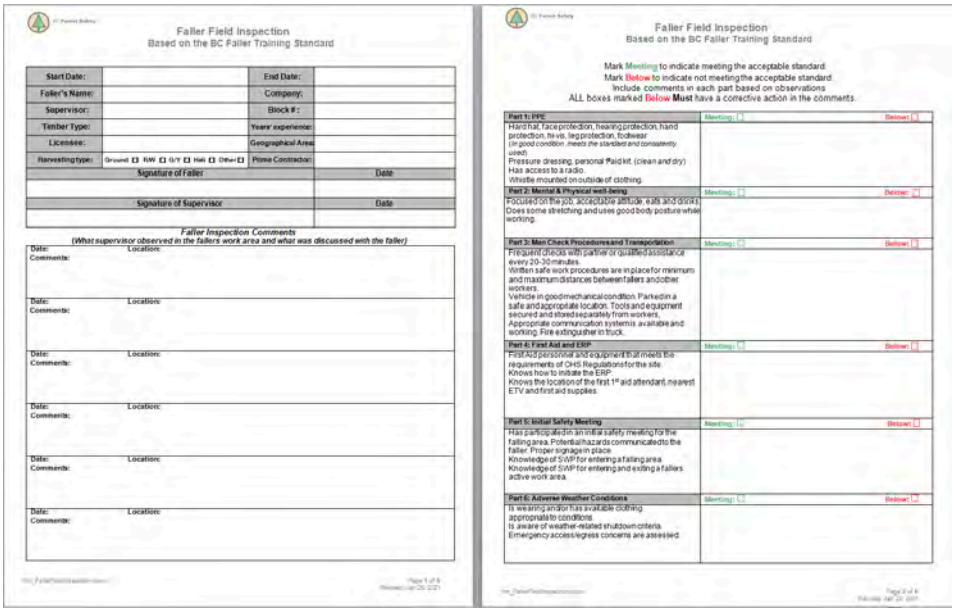
By Scott Rushton
BCFSC Lead Safety Advisor

During field visits around the province in the last few years, one of the widespread patterns the Falling Safety Advisors (FSA's) observed was the inconsistent use of supervisor inspections being performed on hand fallers. The importance of proper supervision of hand fallers cannot be overstated.

As per *OHS regulation 26.22.1(2)*, the supervisor must keep a record of every inspection. The FSA's noticed that there was a wide variety of falling inspection forms being used. Some were very detailed, multiple page inspection documents and some were very simple, one-page documents. I believe it is very important for the field inspection document to cover each part of the BC Faller Training Standard (BCFTS). I also believe the document does not need a numbered scoring system. The most effective way to maintain ongoing faller inspections is using a marking system to determine whether the faller is "meeting" or "below" each part identified in the BCFTS. Fallers marked as meeting the standard's parts will require no corrective action. But fallers marked as below will require the supervisor to show a corrective action on how it will be addressed and fixed.

Based on the wide variety of field inspection documents we observed, it was determined a new hand faller inspection document should be developed that is easy to use and tailored to track inspection requirements based on the BCFTS. With input and feedback from the Falling Technical Advisory Committee (FTAC) and testing with falling companies in 2020, a new inspection document was developed. The goal is to replace the Certified Faller Condensed Audit currently available on the BCFSC website with the industry-approved enhanced audit as the standardized falling inspection document.

I believe it's possible to raise the bar of faller supervisor to an even higher level by providing better tools to help supervisors do their jobs efficiently and effectively. Standardizing a simple-to-use audit document is a step in the right direction.


Faller Field Inspection
Based on the BC Faller Training Standard

Start Date:		End Date:	
Faller's Name:		Company:	
Supervisor:		Block #:	
Timber Type:		Years' experience:	
Licensee:		Geographical Area:	
Harvesting type:	Ground ☐ R/W ☐ G/Y ☐ Hel ☐ Other ☐	Prime Contractor:	
Signature of Faller		Date	
Signature of Supervisor		Date	

Faller Inspection Comments
(What supervisor observed in the fallers work area and what was discussed with the faller)

Date: Location:
Comments:

Faller Field Inspection
Based on the BC Faller Training Standard

Mark Meeting to indicate meeting the acceptable standard.
Mark Below to indicate not meeting the acceptable standard.
Include comments in each part based on observations
ALL boxes marked Below Must have a corrective action in the comments.

	Meeting	Below
Part 1: PPE Hard hat, face protection, hearing protection, hand protection, hi-vis, leg protection, footwear (In good condition ,meets the standard and consistently used) Pressure dressing, personal First aid kit, (clean and dry) Has access to a radio. Whistle mounted on outside of clothing.		
Part 2: Mental & Physical well-being Focused on the job, acceptable attitude, eats and drinks. Does some stretching and uses good body posture while working.		
Part 3: Man Check Procedures and Transportation Frequent checks with partner or qualified assistance every 20-30 minutes. Written safe work procedures are in place for minimum and maximum distances between fallers and other workers. Vehicle in good mechanical condition. Parked in a safe and appropriate location. Tools and equipment secured and stored separately from workers. Appropriate communication system is available and working. Fire extinguisher in truck.		
Part 4: First Aid and ERP First Aid personnel and equipment that meets the requirements of OHS Regulations for the site. Knows how to initiate the ERP. Knows the location of the first 1st aid attendant, nearest ETV and first aid supplies.		
Part 5: Initial Safety Meeting Has participated in an initial safety meeting for the falling area. Potential hazards communicated to the faller. Proper signage in place. Knowledge of SWP for entering a falling area. Knowledge of SWP for entering and exiting a fallers active work area.		
Part 6: Adverse Weather Conditions Is wearing and/or has available clothing appropriate to conditions. Is aware of weather-related shutdown criteria. Emergency access/egress concerns are assessed.		

Sample of the standardized Faller Field Inspection Form

2021 – Looking Up

By David Adshead
BCFSC Lead Safety Advisor

Happy 2021!

As these challenging past two years fade away, we look forward to what 2021 has in store for Falling programs. The BCFSC's Falling Department has numerous programs and projects planned for this year with a collective goal to improve faller safety.

Update Falling Supervisor Program

One key project we are addressing is updating the Falling Supervisor Program to meet the evolving needs identified by industry. We are working closely with the Falling Technical Advisory Committee (FTAC) and industry subject matter experts to redesign the Falling Supervisor Course as a blend of online, in-class and in-field components. We are also updating the certification process by moving from a point-based assessment to an assessment that clearly identifies the safety critical components for supervision. Providing recommendations and gap training plans will provide continual improvement to vital components of the program.

Faller and Falling Supervisor Support when Training a Trainee

Falling Safety Advisors (FSAs) provide advocacy and support to Falling Supervisors and Fallers as they take on Faller Trainees to build their skills, knowledge and experience as they

Continued on page 16...

Falling

Continued from page 15...

progress towards certification. If you are an employer, Falling Supervisor or Faller looking to take on a Faller Trainee, FSA's are available to provide information, guidance and support through the BCFSC Falling Safety Advocacy Program. FTAC identified this as a top action item and it is a key priority of the FSAs for 2021.

Company Reviews

Last year the FSAs performed numerous company reviews with falling contractors around the province. Requests for company reviews come from licensees, prime contractors and individual contractors. These advocacy visits are an opportunity for companies to have their safety management system and hand falling practices reviewed by an FSA. During a review, an FSA spends time observing the Falling Supervisor and the Faller's work and provides feedback on the observations. These visits are an opportunity for the FSAs to listen to concerns, ideas and experiences of individuals in the falling community. This information helps identify trends, innovative ideas and safety concerns that FTAC uses to develop work plan items. For more information on company reviews and the BCFSC Falling Safety Advocacy Program, contact the Falling Department or visit our webpage.

Falling Resource Packages (2020)

FTAC initiated three resource packages is 2020 which have now been the BCFSC website. ***Trap Tree, Glading and Fall & Burn*** were developed with industry input and provide information for companies and individuals who may engage in these forest industry-related activities. The resource packages address the challenges faced by fallers and falling supervisors working and planning hand falling activities for these types of projects and provide information, regulatory requirements and resource links for hand faller safety. To access these resource packages, visit our webpage.

Safe Work Procedures when Bucking Timber

Hand falling is considered dangerous work. But many injuries and fatalities have occurred during bucking work. Bucking

Faller brushing out work area and escape trail before making bucking cuts.

felled wood is often done on rough, steep terrain along the falling face or in a heli-logging setting. Following safe work procedures and recognizing unsafe conditions can reduce the risks associated with bucking activities. Using qualified assistance and having alternate methods available are useful measures to control the hazards.

WorkSafeBC has identified some well-known unsafe work practices in their Designated High-Risk Violations for Hand Falling or Bucking document that have contributed to many serious incidents. This document refers to Falling OR Bucking! An important factor to remember is you need to clear your work area for every cut you make and have an escape trail. Safe bucking procedures involve planning the cuts by:

- Assessing the canopy
- Assessing log stability
- Identifying bind and pivot points
- Choosing the safest place to cut

A working forest is a hazardous place for every task so always identify and create a way out. Regardless of the work you are doing, the old phrase "plan the work and work the plan" rings true.

New Faller Training

Three new faller training courses are scheduled for 2021. COVID-19 protocols and precautions will be in place to ensure the participant and trainer safety.

For questions about the new faller training program, please visit the **BCFSC website** or email **faller@bcforestsafe.org**.

Course Dates 2021 – course locations TBD

March 2 – April 3, 2021

April 20 – May 22, 2021

September 27 – October 29, 2021

To register, please contact the College of the Rockies at **250-344-5901**.

COVID Fatigue

By Dr. Delia Roberts

As we pass the one-year anniversary of the first COVID-19 cases in Canada, the magnitude of the pandemic weighs heavily. No one expected that the effects of the SARS-Cov-2 virus would be as wide reaching, devastating and long lasting as they have been. In spite of the hopes for vaccines and new more effective treatments, the burden only continues to increase. For many, life is very different. Work expectations have changed radically, whether out of work, working from home, or trying to work amidst regulations for physical distancing, sanitizing and travel. But there are some things that can be done to help cope with the uncertainty, fear and loss. Not all of them will work for everyone, but hopefully if you give them a try, at least some of these suggestions will help reduce the stress brought on by the COVID-19 pandemic.

Recognize what is happening

The additional stress created by the financial, social and physical effects of the COVID-19 pandemic affects every aspect of our lives. Things we thought were going to happen have been taken away, and things we didn't want to happen have taken place. A recent survey of Canadians has shown that the impact on our mental health is significant, and not for the better. Self reported anxiety is four times higher than pre-COVID-19 and depression is two times higher. More than half of people who have had to quarantine have experienced a negative effect on their mental health. If you are feeling exhausted by the continuing restrictions, you are not alone!

Recognizing the amount of stress we are experiencing and how it is affecting us and those around us, is the first step in being able to look for positive ways to cope. If you or someone you know are experiencing increased feelings of anxiety, sadness, hopelessness, fear or other effects like disturbed sleep - reach out for help. It might not be something you'd normally do, but it's very important to take that step – there are things that can help!

A good place to start is to check out the information and resources provided in the newest piece in the Healthy Worker series; Mental Health in the Workplace, or any of the resources listed at the end of this article. And keep in mind that the pandemic will end, as more vaccine becomes available and most of the population becomes immune to the virus, business will reopen and life will go on.

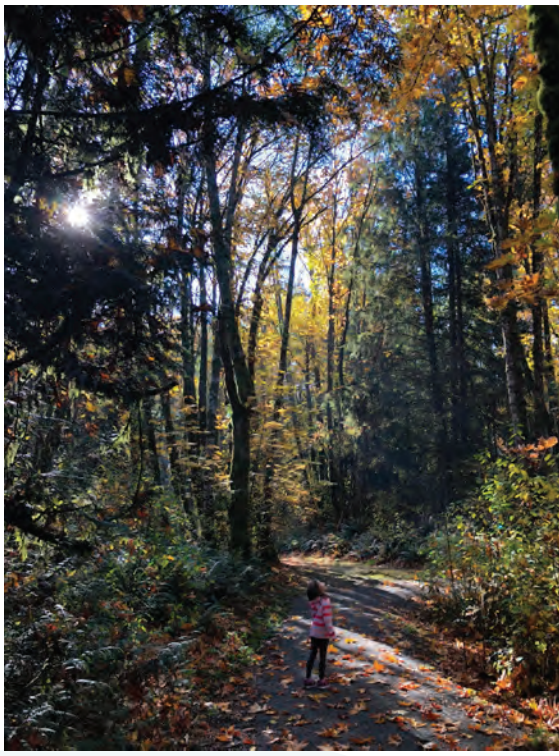
Add physical activity

There are many ways to improve mental health but physical activity continues to be the strongest showing time and time again to be very effective. With gyms and recreational sports leagues largely shut down, we've had to be more creative with ways to work up a sweat. Fortunately, the internet offers a wide variety of instructional videos and virtual classes on just about any kind, and any level of activity you can imagine. Skill drills for your favorite sport, new types of exercise that don't require much equipment and rehabilitation work for previous injuries can all be explored from the comfort of your living room.

One great strategy if you are working from home or in quarantine is to do a few minutes of calisthenics once an hour. Set an alarm and every hour get out of your chair and do a set of sit ups, squats, push ups, lunges, rotator cuff pulls and heel raises. It takes less than 10 minutes, doesn't require you to change clothes or go anywhere and will refresh you more than you might expect. Start with 5-10 reps of each exercise and build up to 20 or 30 reps when it gets easy to complete the set, or gradually add weight by holding a soup can or dumbbell in each hand.

Spend time in nature

Walking outside in nature has a calming effect and increases feelings of happiness, and people who spend time outdoors have lower rates of mental health problems. It helps with physical health too. Hospital patients who can see trees or have a view



of nature through a window recover faster. But recently, a clever study actually tested this effect in the same kind of rigorous trial that is used to study new drugs. Fifty randomly selected empty lots were turned into nature parks with trees and grass or left as is. In the neighborhoods where the lots were cleaned up and made green, mental health issues declined by more than 50% while those that were left unchanged remained the same.

In BC we are exceedingly fortunate to live in such beautiful surroundings. Make it a priority to walk outdoors at least a couple of times a week. It's a great way to connect with a friend or with your family but walking alone in the quiet is also hugely beneficial.

Be mindful

Mindfulness is a popular term that means different things to different people, and in this state of COVID-19 fatigue, it can seem like just one more thing that we aren't doing right. There are however, some elements of the concept that can be very helpful, especially when we have a lot of stress in our lives. Our brains are actually pre-programed to respond in certain ways to threats in order to help us get away or defend ourselves faster, or more strongly.

Continued on page 18...

Health and Wellness

Continued from page 17...

When we experience a lot of stress, these kinds of preprogramed responses can be heightened, and we can feel more fear or anger than is warranted by the event. For example, everyone has experienced the kind of situation where you are frustrated and angry about something that happened at work – or even a long time ago, and then find yourself yelling at your kids or your partner about something else entirely. Learning how to identify these kinds of emotional responses and slow them down is helpful. It gives us an opportunity to think about what the problem actually is, and whether our response will help or not. If this kind of scenario sounds familiar to you, think about reaching out to one of the resources listed at the end of this article. There are free on-line programs that can help you learn techniques to become more aware of your emotions, how you can better understand them and how to work with them to address the real problems that drive them. Here are a few suggestions that are simple to use that you can try right away.

- Mindful Monday. Be kind to yourself on Mondays. If you make a mistake or things aren't the way that you want them to be, imagine what you would say if you were talking to a good friend and say it to yourself.
- Ten Second Tuesday. On Tuesdays, when you feel a strong emotion pause before you respond. Breathe in for a count of three, hold the breath for a count of three, and breathe out for a count of four. Repeat for at least five breaths before considering the situation and what your response should be.
- Willful Wednesdays. Set a small goal for your day and make sure to get that one thing done. Matching the amount of work that you expect to get done to what is realistic is a way to gain a sense of control over our lives, even when there is a high level of uncertainty around big important things.
- Thankful Thursdays. On Thursdays, take five minutes at the end of your day to think about something good in your life, and how much you appreciate that thing. It can be as simple as a good cup of coffee, the sunshine warming you up or a smile from a passerby. This is a great activity to share with your family too.
- Friendly Fridays. Reach out to a friend, family member of even a stranger at some point on Fridays. Say hello and genuinely ask them about something in their lives, and then be sure to listen to the answer. If you can't do it in person, phone or email them. Doing something kind for someone else is a great way to build positive feelings. And the connection will give you an opportunity to also be heard, something that is critical for us as social beings.

Put some energy into making connections

Loneliness is a strong negative factor for physical and mental health, and the more we try to stop transmission of the virus, the more isolated we become. This is especially true if you live alone, are working from home, are out of work or are quarantining. When we can't gather together with friends and family, it becomes very hard to feel connected to others in a meaningful way. Set a baseline rule for yourself not to go more than 48 hours without some kind of interaction with another human being. Phone calls, video calls or conferences, writing email letters, saying hello to neighbors over the fence or meeting friends or family for a walk outdoors are all great ways to make sure that we keep communicating with others in a way that makes us feel connected, supported and cared for.

Isolation can affect different people in different ways, but for many, the more isolated they are, the more that they withdraw. If you know someone who lives alone, and you haven't heard from them in a while, take a few minutes to reach out and make sure that they are alright. If they don't answer, consider dropping by and leaving a note and something small to make them smile on their porch. Books, food, supplies for a hobby they enjoy, kindling for their fire, a packet of seeds or a recording of some music, all are ways of letting them know you are thinking of them and that they matter.

Learn something new

Challenging our brains with something that we find interesting and enjoy is a great way to clear our thoughts of stressors and simulate positive feelings. If you've always wanted to learn how to play a musical instrument or draw, make a craft, speak a new language or study about science, history, philosophy or gardening, now is a great time to get started. There are on-line courses and instructional videos about any and all of these things available for free or a small fee on the Internet. Mastering a new skill generates positive feelings, hope and excitement as long as we are realistic about our goals and progress. If you have a friend with a similar interest, consider inviting them to join in. They can provide motivation to keep with it, share the learning process and help celebrate your newfound skills.

The difficulties raised by the COVID-19 pandemic are very real, and for many, extremely challenging. We can't change what has happened, but we can work on doing our best to look after our health and the health of our families. We are all in this together, and for the long haul, so give some of these suggestions a try and get a bit of relief from COVID-19 fatigue.

More Resources

- Canada Mental Health and Substance Abuse Support Mental Health Wellness Toolkit
- Bounce Back is a free program from the Canadian Mental Health Association for people with anxiety and depression. Learn how to build good coping skills through the on-line program or connect with a coach over the phone
- Here to Help is a resource page with two streams, one for people who are experiencing mental health challenges and one for people who are trying to support someone else's mental health. Explore these pages for links to easy to understand information and other resources for more help
- BC Mental Health and Substance Abuse Support
- Based on well-established Cognitive Based Therapy techniques, this free on-line anxiety management program is available
- Your family physician or other care provider

Kid's Corner

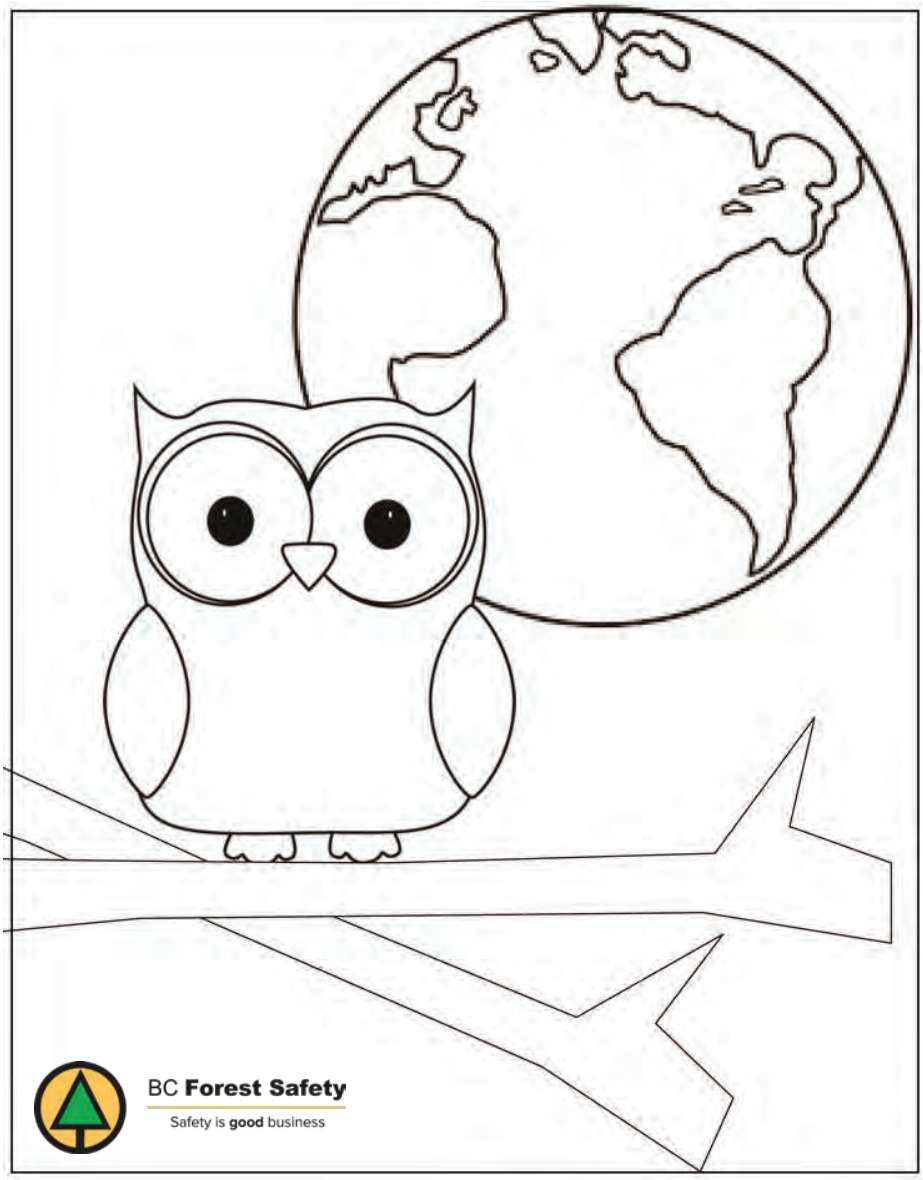
The BCFSC Kid's Corner and Colouring Contest

Thanks to everyone who entered our December colouring contest. **Congratulations to Millie, age 6**, whose name was picked from our random draw. Millie wins the STIHL Toy Chainsaw and we will be sending a special gift pack to everyone else just for entering!

For 2021 we have a new prize for our colouring contest. Send us a picture of your artwork on Earth Day to enter to win a DRIVEN Toy Logging Truck complete with a crane arm and logs. Have your mom or dad, grandma or grandpa or guardian email us a photo of your artwork with your first name and age and we'll put your name into the draw.

How to Enter:

- Colour the Earth Day picture or make your very own drawing.
- Have an adult take a picture of your artwork and email it with your name, age and your mom/dad's email address to **editor@bcforestsafe.org**
- Submit your entry by 4pm, Monday, February 8, 2021
- Kids aged 3 – 12 are eligible.
- All entries will be put into a random draw to win the Toy Logging Truck. The winner will be contacted via their parent's email address.



Earth Day April 22, 2021

ABOUT Forest Safety News

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Have a story, letter to the editor, safety tip, ideas or photos? Please send submissions to:

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BC **Forest Safety**

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FOREST SAFETY NEWS
JUNE 2021 • Issue 2 / vol. 8

Resource Road Safety video targets both industry and recreational users

A new resource road safety video has recently been released showcasing the importance of using resource roads safely. With over 620,000 kms of resource roads across BC used by both industry and recreational users, resource road incidents continue to occur causing great concern for both industrial and public users.

The 10-minute Resource Road Safety video - *Work Here, Play Here, Stay Safe Here* features Gord Judson, a 45-year veteran log truck driver, discussing his personal account involving a tragic incident with a recreational road user on his way to fish for the day. His moving and impactful narrative provides invaluable insight into the potential hazards related to driving on resource roads. Judson's narrative transitions from his heart-wrenching experience to highlighting the safety measures required for driving safely on resource roads and provides step-by-step instructions to aid users in reaching their destination safely.

The video was produced by the BC Forest Safety Council (BCFSC) in partnership with Mosaic Forest Management, Coastal GasLink, the BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development, West Fraser Timber, Interfor, Conifex, Sinclair Group, Weyerhaeuser, Gorman Bros, Canfor, Tolko, and professional off-road driver training company, Overlanding Training Canada, as a collective message to the public to ensure resource road users understand and follow resource road safety rules.

Welcome to the Summer edition of Forest Safety News, covering news about safety topics in forestry. This is YOUR safety newsletter. We look forward to your input and feedback! Email the editor at **editor@bcforestsafe.org** or call **1-877-741-1060**.

What's Inside:

Travelling on resource roads can pose various risks and though there may not be active logging in the area, other industrial users such as oil & mining exploration, silviculture and forest management may be using these roads. All resource road users should exercise caution and expect the unexpected.

View the Resource Road Safety - *Work Here, Play Here, Stay Safe Here* video on YouTube.

Learn More - Resource Road Safety Resources

- BCFSC Resource Road Safety
- Government of BC – Resource Road Safety
- Overlanding Training Canada

What's New

Here is the latest on what we have to offer since March 2021. Find direct links to safety alerts, industry-specific resources, industry information and more to download and/or share with employees, industry and safety peers. And make sure to follow us on social media to stay up-to-date with the latest news. Follow us on Facebook, Instagram, LinkedIn, Twitter and subscribe to our YouTube channel.

Resource Road Safety Video – As summer approaches and traffic increases on resource roads across BC, this video will help keep drivers safe when using resource roads for work or play.

Worker Training and Assessment – Each forestry occupation requires different knowledge and skillsets to safely perform the job at hand. BCFSC worked with industry to develop competency-based standards, training and assessment tools for specific harvesting activities to help employers evaluate workers and complete on-the-job training.

Tree Planter Danger Tree Awareness Training – This free interactive online training course is available to help tree planters recognize danger trees and better understand what to do when working near potential danger trees in their work areas.

Training Calendar – Our 2021 Training Calendar offers both in-classroom (with COVID-19 safety protocols in place) and online courses.

Healthy Worker Series – Get our free posters, crew talks and backgrounders on our latest topics focussing on obesity and mental health and help encourage workers to maximize their health at work and at home.

Industry Lost Time Injury Fact Sheets – The BCFSC has developed fact sheets specific to each CU we represent featuring statistics relating to lost-time injury claims from 2015-2019.

Safety Alerts – Alerts provide timely information on incidents and issues which cause, or result in, serious or fatal injuries. The alerts we send by email and post on our website are intended to raise awareness and educate industry so we can learn from each other's experience and effort. Here are the latest alerts from BCFSC and industry.

- **BCFSC Safety Alert of the Month** - Heavy Equipment Operation on Wildfires
- **Manufacturing Weekly Safety Alert** – click on the link to see the latest weekly alert
- **WPAC Safety Alert** – Explosion at Wood Pellets Receiving Port

Industry Links

Wood Pellet Association of Canada Safety Committee – New webpage launched with links to safety resources, videos, fact sheets and more.

WorkSafeBC Announcements – check here for the latest information on WorkSafeBC policy and regulation updates, resource development, risk advisories and more.

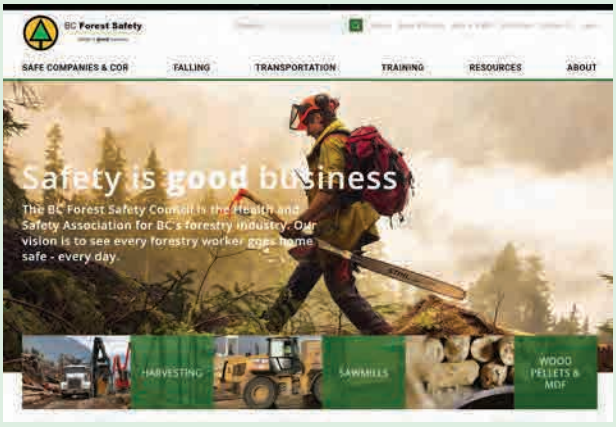
WorkSafeBC Enews – Subscribe to Insight; WorkSafeBC's policy, regulation and research division e-Newsletter, Health and Safety Enews, Young Worker Enews and more.

To subscribe to our safety alert emails – Click Here

BCFSC has a new website

By Michele Fry, Director, Communications

On April 13, the BCFSC unveiled our new website with an updated look. The new site was developed to provide for a better user experience with simple navigation throughout the site. The home page offers easy access to sector-based industry information on harvesting, sawmills and wood pellets/MDF, as well as direct access to Safety Alerts, Quick Links to key sections used by industry such as COVID-19 information, online audit submission, the BCFSC training calendar and more. There is also a quick link to our downloadable resource section that offers a filterable search function to help find documents, resource packages, crew talks, etc. You will also find access to SAFE Companies information, the latest news and real-time posts from our social media feeds from Facebook, Twitter, Instagram and YouTube. Each program area from SAFE Companies, Falling, Transportation and Training has its own section accessible from the top navigation banner where you will also find our resource link and information About the BCFSC with the latest reports and industry statistics.



If you haven't done so already, check out the site at **www.bcforestsafe.org** or watch our guided video tour on our YouTube channel.

Shortened spring break-up and increased road traffic - a cause for concern

With winter weather behind us, more and more vehicles are heading out on the highways and resource roads for work and play. With over 620,000kms of resource roads across BC, these roads are travelled by many types of vehicles from large heavy-loaded logging trucks to industrial pipeline vehicles to pickup trucks carrying tree planters to blocks and vacationers, many without radios, heading out in RV's for some weekend fun.

Resource roads are typically not built or maintained to public roadway standards and pose various risks for all users requiring drivers to exercise caution at all times but also have the necessary knowledge and ability to safely navigate these roads.

With recent market conditions, the high-demand for wood fibre is generating unseasonal logging activities and with it, an increase of forestry vehicles on resource roads - not to mention the spike in traffic from pipeline construction in central and northern BC. These factors combined with the BC tree-planting season in full swing and RV sales hitting an all-time high are creating higher risks for potential incidents to occur.

Mike Pottinger, BCFSC Safety Advisor for the North Coast and Central Interior, has been talking with several contractors, operators and stakeholders and has received a great deal feedback about increased traffic on resource roads causing upset conditions. *"This major increase in vehicle traffic is an important factor to consider for companies sending workers out on these roads but also for the public when planning a trip. The new Resource Road Safety video is very timely and is an excellent awareness tool to help the public understand the dangers of driving on resource roads and what they need to do to help avoid collisions with other vehicles."*

"But spring weather conditions can also create many other hazards including wash-outs, potholes, blowdown, and wildlife." He cautions, *"Add to that a short timeline for contractors to get trucks, equipment and crew ready for another busy season and it becomes vital this important message gets across to everyone travelling on these roads. Drivers need to be extra vigilant to ensure they reach their destination safely. So plan your day and allow for extra time to get to and from work. All drivers need to be aware of fatigue, have their head on a swivel, not be distracted and communicate hazards with other road users to help ensure everyone makes it home safe at the end of the day."*

The BCFSC has tools to help drivers prepare themselves with the skills and knowledge they need to travel safely on resource roads. Our dedicated Resource Road Safety section on our website provides information on public use of resource roads, radio communication, safety tips, driver training and more.

The 2021 planting season is underway

With planting season underway, silviculture workers are back at camp manoeuvring through another season of pandemic challenges. But with last year's record number of 300 million seedlings planted and not one case of COVID-19 among them, BC planters are taking their knowledge and experience learned from 2020 and driving forward to another successful season for 2021.

Last year, industry waited with bated breath wondering if the season would get the green light from the province to forge ahead. After careful planning and implementation of provincial health guidelines, tree planting companies and workers headed out across the province after a late start and worked diligently to ensure their communities stayed safe while managing to have their best planting season ever.

The camaraderie and dedication of each person in the planting community kept them all safe in 2020 and has allowed the 2021 season to start without delay. Building on the lessons learned from last year, revised Industrial Camp Guidelines were updated April 13, 2021 to help mitigate further risk of COVID-19 infection and exposure for workers living in communal sites. With a renewed commitment from industry, companies and workers are following these revised COVID-19 protocols to help maximize health and safety for all.

John Betts, Executive Director of the Western Forestry Contractor's Association shares his insights for the 2021 planting season. *"Last year our efforts succeeded in keeping the virus out of our camps and crews. This year, given the prevalence of COVID-19 infections and the new variants, our task will be to once again use all our protocols to help keep infections out while at the same time containing any spread that might make it past our screening processes. Even with the higher risk, we have the means and the collective will to manage COVID successfully."*

Outside of pandemic challenges, tree planters are also at risk of wildlife encounters, ticks, MSI's and more. In addition to COVID-19 resources, the BCFSC has many tools available for employers and workers to help support worksite and worker safety while out on the block. Take a look at the silviculture materials and share them with your crews to make 2021 another incredible season for all.

Danger Tree Awareness – Free Online Training

Resource Road Safety

Silviculture Safety Resources

Fit to Plant

WorkSafeBC Silviculture Resources

Blasting regulations to be updated

WorkSafeBC has completed a review of the OHS Regulation Part 21: Blasting Operation and updates to the regulation are planned for this fall. Industry feedback has been received as part of this process and is considered when the regulations are updated.

One of the expected changes is to require professional development training for certified blasters and people who are training to become certified. BCFSC is working with blasting experts, explosive manufacturers and WorkSafeBC to develop online training to help forestry blasters meet the new requirements. As more information becomes available, BCFSC will provide updates in Forest Safety News and on our social media channels.

Work-Related Deaths & Injuries

There were two work-related deaths in March 2021 in the BC forestry industry. We extend our deepest condolences to the families and friends of the deceased fallers and our sympathies to all those affected by these tragic incidents.

Injury: Fatal
Core Activity: Manual tree falling and bucking / Helicopter logging / Integrated forestry management
Location: Vancouver Island/Coastal BC
Date: 2021-Mar
A hand faller was conducting road right-of-away falling in old-growth timber. The faller was struck and dragged downslope about 8.5 metres by a previously dead and down tree (no roots attached). The faller succumbed to the injuries.
Read the **BCFSC Fatality Alert March 1**

Injury: Fatal
Core Activity: Manual tree falling and bucking / Helicopter logging / Integrated forestry management
Location: Vancouver Island/Coastal BC
Date: 2021-Mar
A hand faller was cutting timber in a block slated for helicopter harvesting. The faller had completed the falling cuts on a cedar tree (67 inches in diameter). As the tree fell, a 34-foot top portion of an adjacent dangerous tree broke free, fell downhill toward the faller's location, and struck the faller.
Read the **BCFSC Fatality Alert March 15**

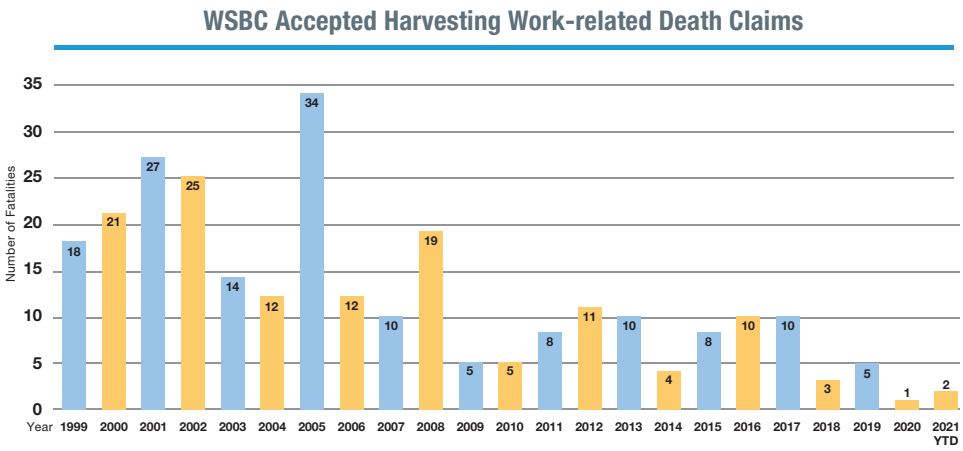
Recent work-related incidents reported to WorkSafeBC

The following sample of work-related incidents recently reported to WorkSafeBC may help prevent similar incidents in your workplace.

HARVESTING

Injury: Laceration, soft tissue injury
Core Activity: Manual tree falling and bucking / Integrated forest management
Location: Vancouver Island/Coastal BC
Date: 2021-Mar
A hand faller was falling a tree (32 inches in diameter). As the faller was completing the back-cut, the tree sat back, creating a falling difficulty. The faller felled a smaller tree toward the cut-up tree in an attempt to push the cut-up tree over. During this process, a piece of wood was thrown backward and struck the faller.

Injury: Fractured finger
Core Activity: Integrated forest management
Location: Interior BC
Date: 2021-Mar



This information represents the number of work-related deaths by year in BC, up until March, 2021.

A worker was repairing the processing head of a feller buncher when the head was inadvertently activated.

Injury: Close call
Core Activity: Integrated forest management
Location: Interior BC
Date: 2021-Feb
A below-the-hook lifting device (J-hook) attached to a trailer loader broke while a trailer was about halfway through the cycle of being lifted. The trailer fell to the ground and sustained extensive damage.

Injury: Soft tissue injuries (1 worker)
Core Activity: Integrated forest management / Heavy equipment, machinery, or parts sales, rental, service, or repair (greater than 500 pounds)
Location: Northern BC
Date: 2021-Feb
A forestry processor operator and a mechanic were working on a processor head. The mechanic's service truck was parked on an icy road with a slight slope. As the work was being done, the ambient temperature increased and the ice and snow began to warm up. The truck slid downhill, pinning the operator between the service truck and the processor head. The operator was able to self-extricate from the entrapment. The mechanic was not injured.

Injury: Fractured arm, laceration
Core Activity: Manual tree falling and bucking / Integrated forest management
Location: Vancouver Island/Coastal BC
Date: 2021-Jan
A hand faller was completing the falling of a cedar tree 40 inches in diameter. Due to improper falling cuts, the cedar fell at 90 degrees from the intended direction, into standing timber, where it contacted two dangerous trees. One of the dangerous trees failed, sending debris toward the faller's location. The faller, who was injured by the debris, received first aid on site and was then transported by company crew boat en route to hospital.

MANUFACTURING

Injury: Close call
Core Activity: Sawmill
Location: Interior BC
Date: 2021-Feb
A security patrol spotted a fire at a sawmill that was not running at the time. The fire, which started in the chip screen room, spread up some conveyors and into the sawdust, chip, and hog bins, and then to other parts of the mill. The fire department attended and extinguished the fire, which caused extensive damage.

Injury: Close call
Core Activity: Sawmill
Location: Interior BC
Date: 2021-Feb
A fire broke out in a biofuel heating unit. A leak had occurred in the thermal tubes containing heat transfer oil; the oil ignited from exposure to the biofuel kiln combustor and spread through the ductwork of the structure. The biofuel heating unit and the building sustained fire damage. The fire department responded, extinguished the fire, and secured the building.

Injury: Close call
Core Activity: Sawmill
Location: Interior BC
Date: 2021-Feb
A fire occurred in the debarker at a sawmill. The fire appears to have started in the gear drive of the debarker, and the fire suppression system activated. Workers were evacuated from the building, and the fire department attended and ensured that the fire was contained and extinguished. There were no injuries and the structure was not damaged. The dust collection system was not involved.

TRANSPORTATION

Injury: Minor injuries (2 workers)
Core Activity: Helicopter visual flight rule operation
Location: Lower Mainland
Date: 2021-Mar
Two workers were travelling to a remote work location by helicopter when the helicopter crash-landed in a densely forested area. The workers were transported to hospital by ambulance. The cause of the incident is being investigated by the RCMP and the Transportation Safety Board of Canada.

2021 SAFE Companies audit submission requirements

By Martin Ridgway, SAFE Companies Supervisor, Quality Assurance

Internal Audits

Small employers (IOO, ISEBASE and SEBASE) are generally expected to perform their usual audit in 2021 at their normal (pre-COVID-19) time. All audits should contain evidence from the last 12 months before the audit submission date, even if that causes overlaps or gaps from the last audit. For example, if you submit in late August 2021, include September 2020 through August 2021 even if your last audit was sent in December 2020 due to COVID-19 delays. If you are unsure if you should submit a maintenance audit or a recertification, contact our office for specific information or default to a recertification audit which will reset your regular audit date.

BASE Maintenance Audits

While the ideal BASE audit scores answers from each question and question section, due to safety concerns travelling to various sites, scoring in-person observations and interviews may not be possible until restrictions on in-person site visits are lifted. While some interviews can be done through video conferencing or by telephone (if video is not possible), these alternatives may not be practical if the worker is out of cell range or has an unreliable internet or phone connection. Questions (or parts of questions) that are omitted can be scored as 'not applicable'. The number of interviews could also be reduced, or the timing of the audit adjusted with sufficient justification. The auditor needs to clearly explain on the NOAA why their plan is the best achievable plan for their audit.

BASE Recertification Audits

BASE recertification audits, with the exception of certain silviculture and camp operations, are expected to have documentation, interviews and in-person observations. If the pandemic is severely impacting your company's operations, contact us to discuss audit solutions.

Silviculture and related audits

Recertification of certain BASE-sized silviculture and related camp-based operations are subject to specific Provincial Health Orders. Reduced interviews and/or altered observation scopes and practices can be arranged on a case-by-case basis with WorkSafeBC approval.

Regaining COR status

To help companies regain COR status after the last year's unprecedented circumstances, BCFSC is offering free online auditor training to company representatives for those companies with someone previously trained in IOO or SEOHS. The 2021 audit submission should be submitted by the auditor as soon as practically possible after completing training, even if it is less than 12 months since the last audit in 2020. This offer is only available for a limited time from now through August 31, 2021 and does not include in-person or other instructor-led classes. Companies who do not have a previously trained IOO or SEOHS person are not eligible. For questions and enrollment information contact **safeco@bcforestsafe.org**.

Send your audit submissions electronically

By Cherie Whelan, Director SAFE Companies

The 2020 audit processing season is finally complete! With COVID-19 restrictions and BCFSC staff working remotely, submitted audits took us longer to process than in years past. We appreciate your patience in working through these difficult times.

Due to the restrictions, we have adjusted some business processes to ensure we can meet our deadlines with WorkSafeBC. One of those changes is we will no longer be returning your audit submission due to staff limitations. If you require a copy of your audit, contact our office and we will provide a scanned version.

This past year, we received many audit submissions in binders with tabs separating the material. We recognize the work, time and money it takes to assemble this information and ship it out and we want to help you save that precious time and cost. By using our electronic audit submission options, you will not only save on printing and shipping, but your documents will already be in digital copy format submitted by you so you will not require your audit to be returned. If our electronic audit submission options do not work for you, you can still submit your printed audit submission materials but we request they be sent in audit question sequence

without staples, clips, tabs or binders. It's easier for us and much less work for you!

Earlier this year, I had an eye-opening discussion with an employer dropping off his audit materials in a neatly organized binder to our office. We discussed the new electronic audit tool (OAT) we recently launched and he told me he

Continued on page 7..

Continued from page 6...

felt the printed materials submitted in a binder with tabs was an easier way for the Safety Advisors to review the audit materials. When prodded further, he said they can simply flip through the binder to access the information. I appreciated that he was thinking about our Safety Advisors when he put his materials together and he was trying to make our work easier. But in actual fact, printed audit materials are much more difficult to manage and take much longer to process on our end. Our filing system is now 100% electronic and staples, clips and tabs require considerable administrative effort for our limited staff to prepare the printed materials for scanning, not to mention the potential damage to our scanners should a staple or clip get missed. Once the paper audit is free of staples, clips, etc. and reorganized for scanning, our admin staff then process it and upload the scanned audit into our systems for the Safety Advisors to review. So although you may think your binder is an easy way for us to review your audit, it actually causes a lot of unnecessary work for both parties and is never actually reviewed in printed form by the Safety Advisors.

The most efficient and effective way to submit your audit is using our electronic audit tools. Consider one of the following for your next audit submission.

1. **Use our new ONLINE AUDIT TOOL (OAT)** (85MB max per file).
2. **Upload** via our website (for files 8MB or larger)
3. Email (files less than 8MB) to **audits@bcforestsafe.org**
4. Send by fax: **250-741-1068**
   If paper audit submissions are your only option (and we will always process paper audits) they can be submitted by:
   1. Courier or delivery service to the BCFSC Nanaimo office.
   2. Drop off to the BCFSC Nanaimo Office between 8:30am – 4:30pm, Monday to Friday. Upon arrival, masks are required with social distancing procedures in place.

Note: We request paper audits submissions be submitted **without** staples, paper clips, binder clips or binders to help reduce the processing time and allow us to get your results back faster!

New opportunity for COVID-19 in 2021: Virtual Site Visits

By Mike Sexton, BCFSC Safety Advisor

If you have been selected for a site visit in 2021- there still may be an option for a site visit.

While travel is currently suspended due to COVID-19 restrictions, the BCFSC will continue providing you with personal service by offering virtual site visits. This option will not replace regular site visits but offers supplemental service during provincial health restrictions, especially for companies that just want their audit done!

The requirements for virtual site visits are not much different from in-person visits but does require video technology ability through digital applications such as FaceTime for Apple mobile users or What's App for Android mobile users. If your mobile phone doesn't have these options, a laptop with a camera can also be used with an online video platform such as Zoom or GoToMeeting.

Observations and chats with you and your workers would be done using video interaction. A designated person in your company would show the BCFSC auditor what they need to see on site using the device's camera and documents can also be displayed on camera or sent electronically.

We do not expect this would work for everyone but for those with the technological ability, it's an option that can easily be put in place. If you have been selected for a 2021 site visit and would prefer to wait until COVID-19 travel restrictions are lifted that is easily managed. But if you want your audit done ASAP, contact us and let's see if we can make this virtual option work for you!

WorkSafeBC COR Proof of Concept update

BCFSC continues to work with the other Certifying Partners and WorkSafeBC on plans for a future COR audit. WorkSafeBC is currently developing a preliminary working copy of an audit tool and will be working towards its testing phase to ensure it functions properly. The current Proof of Concept (POC) stage is like a scale model test in its primary phase. It is even more preliminary than a pilot audit and not ready for a real test pilot.

Several POC companies and external auditors across various industries have been selected to test the new tool and will use POC audits from May to November this year. As the Certifying Partner with the most companies, BCFSC has the most audits. Many of our external BASE auditors also audit other industries, so over half the POC auditors are veteran BASE auditors.

The auditors and Certifying Partner QA staff have been trained but companies are not expected to change or alter their safety systems for the audits. A good investigation should be a good investigation no matter how you measure it. A company with years of 98% scores should not suddenly do a lot worse than a newer company that only grew from 81% to 84% in the three-year certification.

WorkSafeBC has posted all available public information regarding the POC on their WorkSafeBC website. We will continue to keep you informed as things progress over 2021 and 2022.

BCFSC training activity to date

In the December 2020 edition of Forest Safety News, we shared how Falling Supervisor training was successfully delivered during COVID-19. Since then, we have continued to provide training and have also successfully delivered:

- Incident Investigation in Campbell River, Kamloops and Prince George
- Four days of funded BCFSC Forest Supervisor Training delivered at various BC Colleges - Okanagan College (Salmon Arm), College of New Caledonia (Quesnel), Selkirk College (Castlegar)
- BCFSC delivered scheduled Forest Supervisor training in Campbell River, Kamloops and Prince George. Three requested sessions were also delivered in Nanaimo for Mosaic Forest Management

We also launched the new Resource Road Training Program. Approximately 110 participants enrolled and participated in various activities like the online knowledge unit, eight sessions of one-day, in-field safety training and three sessions of two-day, in-field driver training.

Year-to-date, five Basic Chainsaw Operator sessions have been delivered in Port Alberni, Campbell River and Salmon Arm. All these sessions were hosted by colleges including North Island College and Okanagan College.

With established COVID-19 safety measures for both in-classroom courses and outdoor in-field training, BCFSC ensures venues allow for safe physical distancing and health and safety information is shared, understood and adhered to by participants. Our trainers are also expected to demonstrate and encourage best practices throughout the course. We continue to monitor the provincial COVID-19 requirements and make adjustments as needed to ensure the safety of our students and trainers in maintained.

As we've all had to stick-handle through pandemic protocols over the past year, the BCFSC has also seen increased demand for online courses. In response, we have developed FREE online course options including the new occupational-based training for forestry workers, Forestry Safety Overview, Serious Incident and Fatality Investigation, Phase Congestion and more. Check out the training calendar on our website for upcoming courses or contact **training@bcforestsafe.org** for more information.

Incident Investigation	2021 Feb 26	Campbell River
Forest Supervisor Mod. 1	2021 Mar 9	Salmon Arm
Forest Supervisor Mod. 2	2021 Mar 11	Salmon Arm
Forest Supervisor Mod. 3	2021 Mar 12	Salmon Arm
Forest Supervisor Mod. 1	2021 Mar 16	Quesnel
Forest Supervisor Mod. 1	2021 Mar 18	Campbell River
Forest Supervisor Mod. 2	2021 Mar 18	Quesnel
Forest Supervisor Mod. 3	2021 Mar 19	Quesnel
Forest Supervisor Mod. 2	2021 Apr 8	Campbell River
Forest Supervisor Mod. 3	2021 Apr 9	Campbell River
Forest Supervisor Mod. 1	2021 Apr 15	Nanaimo
Incident Investigation	2021 Apr 23	Kamloops
Forest Supervisor Mod. 1	2021 May 6	Kamloops
Forest Supervisor Mod. 1	2021 May 11	Castlegar
Forest Supervisor Mod. 2	2021 May 13	Castlegar
Forest Supervisor Mod. 3	2021 May 14	Castlegar
Incident Investigation	2021 May 14	Prince George

Resource Road Safety Training

2021 Apr 12	Harrison Mills	(5104)
2021 Apr 13	Harrison Mills	(5104)
2021 Apr 19	Campbell River	(5104)
2021 Apr 22	Castlegar	(5104)
2021 Apr 26	Prince George	(5104)
2021 May 3	Princeton	(5104)
2021 May 9	Princeton	(5104)
2021 May 10	Princeton	(5104)

Resource Road Driver Training

2021 Apr 13	Squamish	(5105)
2021 Apr 22	Terrace	(5105)
2021 May 1	Rock Creek	(5105)

Basic Chainsaw Operator

2021 Mar 8	Campbell River	(5089)
2021 Mar 10	Campbell River	(5089)
2021 Mar 15	Port Alberni	(5089)
2021 Mar 17	Port Alberni	(5089)
2021 Mar 22	Salmon Arm	(5089)

Tree Planter Danger Tree Awareness training

Free online Danger Tree Awareness Training for tree planters is now available.

This interactive course helps planters recognize danger trees and understand what to do when there are danger trees nearby.

A big thank you to Blue Collar Silviculture for sharing this training with the planting community.

Entry Level Forest Worker training update

Over the years, employers have provided feedback indicating the challenges in finding the right employees to sustain their operations. To help meet the needs of industry, the BC Forest Safety Council (BCFSC) is coordinating a funded initiative from AEST to develop and deliver pilot training for workers new to BC forestry.

The Entry Level Forest Worker Training program is intended as a worker-readiness training program targeting new groups such as Indigenous Peoples, women, and high-school students for safe worker entry in the BC forest industry. Graduates arrive on the job with basic skills, a thorough knowledge of forestry and fully prepared for on-the-job learning in their chosen occupation. This program is designed to align with the occupational resources developed by BCFSC and employers can opt to continue their worker's training by utilizing the BCFSC on-the-job training and assessment materials at the worksite.

Status of Deliveries:

Okanagan College (Revelstoke) completed their pilot in 2019. Overcoming delays and challenges due to COVID-19, Selkirk College (Grand Forks) and CNC (Vanderhoof) finished their programs in December 2020.

Coast Mountain College (Terrace) started in March 2021 and is well underway. Program Coordinator Laurie-Lynn Kallio comments:

"This program is an amazing opportunity to educate and introduce forestry as a career to our students. We continue to try and implement experiential-placed based learning safely. Thus far, the activities have included a visit to Gruchy's Beach to view an old growth forest and a visit to a local business which sells heavy duty equipment related to forestry and construction sites.

Guest speakers have included representatives from WorkSafeBC and the Ministry of Forests, Lands and Natural Resource Operations. Guest speakers scheduled for May include: two forestry consultants who will conduct GPS exercises with the students, another who will take students to view timber stands at various stages of growth, a Field Safety Advisor from BCFSC who will discuss safety issues, and a representative from WorkBC.

We hope to complete the following field visits to view a tree nursery and mill in Smithers, a community forest near Terrace and an interpretive trail to view old growth and bonsai type forests near Prince Rupert."

Instructor, Murray Sanders says the program *"allows entry level workers to enter the forest industry where they fit."*

Participants involved in Coast Mountain College's Entry Level Forest Worker Program have stated:

"Our society is based on our phones. There is no wifi connection in the forest but you will find a better connection – this program can help you connect your interest in the forestry community." – Pasha O.

"A good foundation into an entry level forestry position" – Zachary Price.

"Great introduction into forestry! I enjoyed learning about the environmental aspect of forestry. Having family in this field fuels me to want to be better than them." - Faith N.

Employer partners with Coast Mountain College so far have included: D.R. Holtom Ltd., Inland Kenworth Truck Sales/Heavy Equipment Sales, Seaton Forest Products Ltd., Cypress Forest Products Ltd., Woodmere Nursery Ltd.

The pilot steering committee members at North Island College and Vancouver Island University (VIU) are also offering programs containing some or all of the Entry Level Forest Worker training materials.

North Island College recently delivered their Coastal Forest Worker Certificate Program to an indigenous cohort sponsored by the Homalco First Nation and WorkBC, as well as a tuition-based diploma cohort with both programs incorporating the Entry Level Forest Worker training materials.

VIU started their Fundamentals of Forest Harvesting Practices Certificate in March 2021 in Woss, BC supported by their industry partners, Western Forest Products and area contractors.

An evaluation of the results from all deliveries will be assessed and any adjustments to the materials and model will be made between May and Dec 2021. Stay tuned for program updates from the BCFSC in our upcoming Forest Safety Newsletters.

If you have any questions about the Entry Level Forest Worker Training Program, please contact Allison Thompson, BCFSC Manager Training & Standards.

Canada BRITISH COLUMBIA

Funding provided through the Canada-British Columbia Labour Market Development Agreement.

Know your four-wheel drive systems and how to use them correctly

Modern vehicles are the safest and most technologically advanced vehicles ever built. Beneath the surface lies mechanical and technology systems many of us take for granted or may not even be aware of. These common features give you the ability to negotiate resource roads more safely.

The key to getting these systems to perform properly when necessary is driver knowledge. You need to know what to use, when to use it, how to use it and why.

There are four common types of drivetrains in today's vehicles:

Two-wheel drive (2WD)

- Only one axle is driven by the engine and transmission, either rear- or front-wheel drive. Typically used for driving on paved roads and highways.

All-wheel drive (AWD)

- Both axles are driven by the engine, transmission and a transfer case. The ratio at which power is sent between axles may vary depending on the vehicle model.

Part-time four-wheel drive (4WD)

- Both axles can be driven by the engine, transmission and a transfer case. The vehicle has a two-wheel drive option, a four-wheel drive high-range option and four-wheel drive low-range option. This is one of the most common drivetrains and is found in almost all pickup trucks and SUV's.

Full-time four-wheel drive (4WD)

- Both axles are always driven by the engine, transmission and a transfer case. The vehicle has a four-wheel drive high-range option and four-wheel drive low-range option and is found in some SUV's and pickup trucks.

When to use 2WD, 4WD high-range or 4WD low-range

2WD

- Use 2WD if you are driving on dry pavement or a surface that has very good traction.

4WD high-range

- Use this range when you leave a paved road and travel on a resource road or when you are negotiating a lower traction surface.
- Most modern vehicles are designed to be driven for their entire lifespan in this mode if necessary.
- Using 4WD on a resource road or lower traction surfaces can provide more control, less tire spin, less wash-boarding of the road and more mechanical sympathy.

4WD low range

- Use this range when on steeper resource roads or when negotiating a lower traction surface on steeper terrain
- This range is used when you need more torque such as for towing or transporting heavier loads
- You use this range when you have to move slower for more control. For example, over rough obstacles.
- 4WD low-range should be applied prior to needing it and will not necessarily help you from freeing your vehicle if it's stuck.

Vehicle Safety Systems

Modern vehicles use an array of sensors and control modules to control certain functions. These sensors work together to determine what the vehicle is doing and what the user may require from the vehicle. For passenger vehicles, they are the heart of a vehicle's safety system.

ABS – Anti-Lock Braking System

A skidding tire has lost control and traction. Modern vehicles use four-wheel speed sensors that determine whether tires are losing traction and in the case of braking, skidding. ABS will only activate when the vehicle senses you applying the brake and any wheel starts to skid. The system allows a "pulsing" of individual brakes, allowing the skidding tires to roll again and regain traction before applying the brake again. This happens many times per second.

Continued on page 11...

Continued from page 10...

Modern ABS systems will stop you 100% more quickly than any other braking system and will also allow you to steer, if necessary, while the ABS braking system is activated. This safety function automatically senses steering input and allowing the tires on the outside of the turn to roll a fraction quicker than those on the inside of the turn. However, this will increase your total stopping distance.

Traction Control

Traction control is that little orange light on the dash that shows the car with the squiggly lines underneath it. This system is often misunderstood and misused by drivers. Traction control is essentially the opposite of ABS braking. The vehicle senses the driver applying throttle (gas) and detects a spinning or skidding tire. The vehicle reacts by reducing the ability to apply throttle to slow the spinning tire so it can regain traction and control. In limited circumstances, tires spinning under throttle input may be beneficial such as in deep snow or mud where a slight tire spin allows inertia to keep the vehicle moving. This is why some vehicles have a button to reduce traction control input. However, other than deep snow or mud, in almost all circumstances, traction control should NOT be turned "off" as it greatly reduces your safety by allowing tire spin and can cause the vehicle to lose control.

Advanced Traction Control

Some modern vehicles have an advanced traction control system designed to help propel the vehicle when traction is lost. If your vehicle is equipped with this function, it is imperative to understand how it works and how to use it (professional driver training can help you learn how to utilize this great feature). The system is designed so that when the vehicle is losing traction while throttle is being applied, it will apply heavy braking to the wheels losing traction - redirecting torque to the wheels with good traction and hopefully allowing your vehicle to correct itself and proceed safely. When this system is activated, its performance is limited so throttle control must be accurate and consistent.

Stability Control

Modern vehicles have pitch and yaw sensors and when combined with throttle input, the system can help control a vehicle in situations such as oversteering. When the vehicle's throttle is applied and there is excessive yaw or pitch, the system may momentarily remove the ability to apply throttle while also applying individual braking. This is the system trying to recentre the vehicle to correct the trajectory or maintain a straight path.

Locking Differentials

Some vehicles (particularly higher spec'd trucks) have the option of a locking rear differential. All 4WD vehicles have differentials on each axle allowing the wheels to be propelled, but also allowing each wheel to turn at a different speed to enable cornering. When cornering, each wheel needs to turn at a different speed as opposed to driving in a straight line when all wheels turn at the same speed. The challenge with a differential is they allow power to go to the path of least resistance. For example, if one rear wheel ends up on a slippery surface and throttle is applied, that tire may spin, and the vehicle may not be able to move forward. With a vehicle equipped with a locking differential, it can be activated so both wheels on that axle will turn at exactly at the same speed, no matter the traction difference between each wheel. This may allow forward progress.

Important information regarding locking differentials:

- They must be activated prior to needing them, not when stuck. They will often not engage once you are stuck. Good driver skill and knowledge is important.
- They must only be activated and used when driving in straight line (or as straight as possible) as locking differentials cause increased mechanical strain to the vehicle.
- If the vehicle is equipped with both front and rear locking differentials, apply the rear first which will generally be sufficient.
- Never use locking differentials on surfaces with good traction such as paved roads.

Mechanical sympathy, terrain sympathy, smart driving

Whenever driving, the aim is to avoid tire spin or skidding. Maintaining control reduces wear and tear on your vehicle and reduces the impact on terrain. While modern technology systems help keep us safer, they are there to assist when needed and should not be relied upon to correct poor driving skills.

Durability

Vehicle durability can be challenging such as the ever-present Check Engine light, an ABS warning light and so on. Working in camp or driving a vehicle to and from remote areas can limit opportunities to fix minor mechanical problems. It is important to keep your vehicles well serviced to avoid break downs when working in the bush! Don't allow your vehicle to slip into a state of disrepair with inoperable safety functions. As soon as possible, have issues looked at and repaired.

Knowing your vehicle is key. Referring to the owner's manual is a good source of information to help you understand the features built into your vehicle. But knowing how to handle your vehicle and use it safely is essential. Train yourself and your workers. Enroll in the BCFSC's Resource Road Driver Training programs.

It is our duty to ourselves, our passengers and others out there on the roads to strive to be the best drivers we can be - armed with knowledge, skills and safety in mind. Always remember ... **Technique before Technology.**

Radio use and resource road calling procedures video scheduled for July 2021

This July, look for our next resource road video focussing on radio use and resource road calling procedures in follow up to the latest resource road safety video. This new video will address best practices related to radio use and road procedures and will highlight the Ministry of Forests, Lands, Natural Resource Operations and Rural Development standards for radio calling, road signage and radio programming. It will also incorporate some of the current practices used by several operations in BC.

This new video will target all industry resource road users and is intended to provide a comprehensive narrative that supports safe operations and highlights the importance of proper onboarding when changing worksite locations.

For more information contact the Transportation Safety Department at 1-877-741-1060.

A focus on load securement

By Dustin Meierhofer, Director, Transportation and Northern Safety

Load securement related to log hauling is a critical step which must be done correctly to ensure the safety of workers and the public. The process of securing a load of logs has historically involved the driver throwing and securing cables around the load prior to transporting. This method has been effective in addressing load securement, but as evidenced by WorkSafeBC injury statistics, can result in driver injuries. These injuries may result from repetition, poor technique, load securement device weight, inadequate risk assessment, limited availability and/or understanding of load securement options and other related human and operational factors. The overall cost of injuries related to wrappers is more than $3.6M in the last 10 years (WorkSafeBC 2020).

In light of this, in the fall of 2020, the Load Securement Working Group (LSWG) was formed with the objective of developing resources, tools and initiatives to help reduce the risk of injuries to log truck operators during loading and unloading operations in both routine and non-routine operations. The group is collaborating on assessment of risk, safe work procedures, training, existing and new technology, alternative practices and procedures, and potential impacts to industry.

With changes to Part 26 of WorkSafeBC OH&S regulations coming in late 2021, there are opportunities to identify improved load securement options, processes, techniques, tools and resources that could efficiently and effectively be utilized by industry. BCFSC, LSWG and FPInnovations have initiated a load securement project to investigating short-term solutions such as Joe Easy Wrap, JB Cable Slinger, synthetic ropes, platforms and tie downs, loader assist and lightweight wrappers to reduce wrapper related injuries. Longer-term solutions will also be explored which may include automated load securement systems.

The expected benefits of having the appropriate technologies and practices to manage wrapper related injuries will be:

- Prevent workplace related injury in BC's logging industry
- Lower WorkSafeBC claims
- Improve operational efficiencies
- Improved worker retention and recruitment

The project will be conducted over three phases and is expected to be complete in late 2021/early 2022. With funding provided by WorkSafeBC, phase one is currently underway and is estimated to be completed by June 2021. Information related to the study will be available on the BCFSC website as phases are completed.

For more information regarding the project or to access load securement resources please contact BCFSC Transportation Safety Department **transport.admin@bcforestsafe.org** or visit the Transportation section on the BCFSC website.

Look for our new Safety Zone billboard

By Trish Kohorst, Manager, Transportation and Northern Safety

The next time you're out driving in Prince George, look for the new **Safety Zone** billboard featuring important tips on how to drive safely when travelling around large commercial vehicles.

The new billboard was developed in collaboration with the BC Forest Safety Council and Be Truck Aware alliance partners to remind drivers of the visibility and manoeuverability limitations of these large vehicles. These trucks require significantly more stopping distance than a passenger vehicle especially on wet road conditions. Also, it is essential that all drivers understand these trucks have significant blind spots (the spots where the driver cannot see another vehicle) due to their large size and limited rear visibility.

As summer approaches, more and more logging trucks will be out on the highways. Knowing your limitations and the limitations of other vehicles on the road will help us all share the roads safely. It is important for all drivers to understand that we ALL have a role in keeping the highways safe.

For more information or to order a billboard, contact the BC Forest Safety Council Transportation Department at 1-877-741-1060

Learn more about the Be Truck Aware program.

Message from the Canadian Council of Motor Transport Administrators about June 2022 ELD enforcement mandate

On May 5th, the Canadian Council of Motor Transport Administrators (CCMTA) issued an announcement regarding the enforcement plan for electronic logging devices (ELDs). The enforcement plan outlines a 12-month progressive educational enforcement strategy that ends in June 2022. It reflects the Canadian Trucking Alliance's main position on the issue established earlier this year. The latest enforcement plan issued by the CCMTA is based on the realities of the current requirements needed to institute the mandate including the availability of third-party certified ELDs. The current lack of availability of certified ELDs is an issue of concern for the enforcement community. This concern is reflected in the announcement, however, the CCMTA statement confirms that jurisdictions will continue to monitor progress for certification of these devices entering the market.

"The Canadian Trucking Alliance (CTA) wanted to see full enforcement of the ELD mandate beginning in June 2021, but as we have been aware for some time, that would have been difficult to achieve for several reasons, not the least of which is the worldwide pandemic which caught the industry, governments and suppliers by surprise in 2020," said CTA president Stephen Laskowski. *"However, CTA is pleased that the period of progressive enforcement will end in 12 months and full enforcement will commence in June 2022, which is in fact the industry's position."*

He continues, *"In the meantime, CTA expects several of these ELD devices to become certified shortly. As that continues to occur, CTA expects the conversation between government and industry to develop regarding the 12-month progressive enforcement strategy. The CCMTA announcement reflects a moment in time and is reflective of the current market landscape during these challenging times. Once these devices are certified, the issue of stronger enforcement leading up to June 2022 will be a subject matter of discussion between CTA and CCMTA. CTA expects those conversations to be active throughout the next 12 months as the landscape regarding third party ELDs evolves."*

Review the full CCMTA announcement.

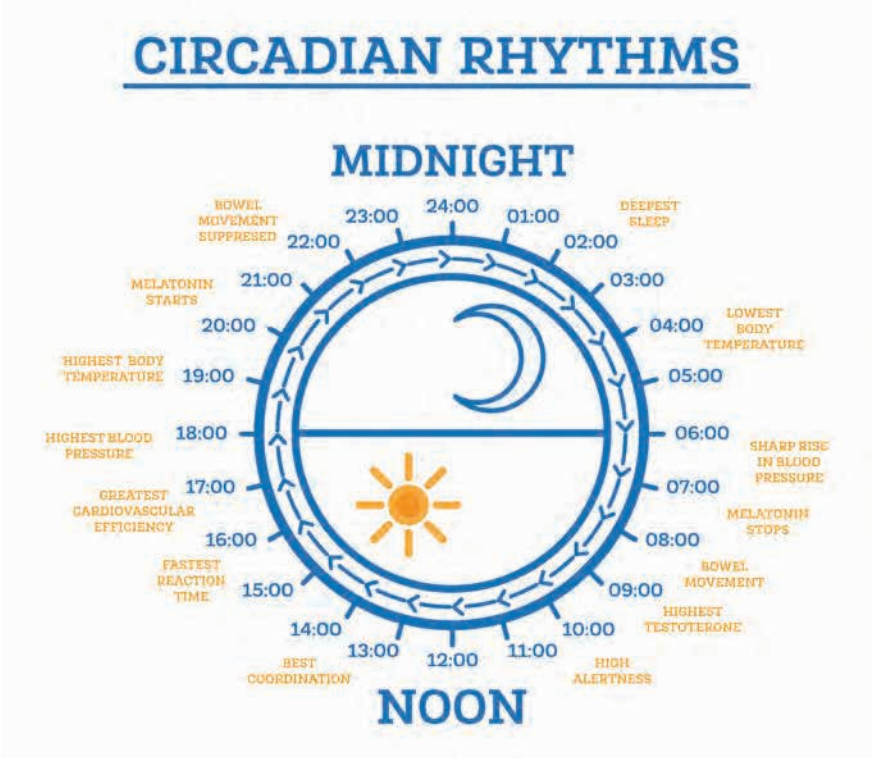
Industrial Workers at the highest risk of fatigue

– published with the permission of Fatigue Science

Sleep affects every aspect of our lives. For an industrial worker, the stakes are even higher. Sleep interruptions cause fatigue, which impacts both safety and performance on the job. Moreover, the nature of 24/7 operations and night shifts means that industrial workers are more affected than most by natural circadian forces that create fatigue.

What is a circadian rhythm?

The body's circadian rhythm is the natural 24-hour clock regulating the body's sleep-wake cycle. As one of two major biological factors behind sleepiness and fatigue, circadian rhythm dictates that we should be asleep at night and awake during the day.



In an ideal world, everyone would maintain a consistent sleep schedule. Unfortunately, the reality is that many people work in environments that challenge their body's natural sleep and wake cycle. It isn't always easy, but there are steps you can take to help get the best sleep possible:

How can you sleep better?

Tell family and housemates

Post a calendar in your home with your work and sleep schedules. This will help everyone know when you're away, and more importantly when you'll be sleeping.

Create a sleep zone

Blocking outside noise and light is ideal if you're trying to sleep during the day. Put blackout curtains on windows and use earplugs or white noise to mask outside sounds. Make sure the room is at a comfortable temperature to help encourage your body's circadian rhythm. The optimal range is 15.5°-19.5°C (60° – 67°F).

Get ready for sleep

Spend some time winding down to send your body signals that it's time to sleep. Do relaxing activities like reading, stretching, or taking a warm shower. Limit your exposure to sunlight and avoid TV and digital devices as these can increase the time needed to fall asleep.

Be consistent with your sleep

If you always work the same shift, be consistent with your sleep schedule. Go to bed and wake up at the same time, including on days off.

Watch what you eat and drink

Don't eat or drink too much within three hours of your bedtime. Avoid coffee and other caffeinated drinks within 12 hours of bedtime, and limit alcohol well before bed. If you're working nights and need a snack, stay away from heavy, fatty foods, and don't eat after 3 a.m.

Plan ahead

If you work rotating shifts, gradually move your sleep and wake times over a few days. If you're beginning a series of night shifts, try to take an afternoon nap before your first shift.

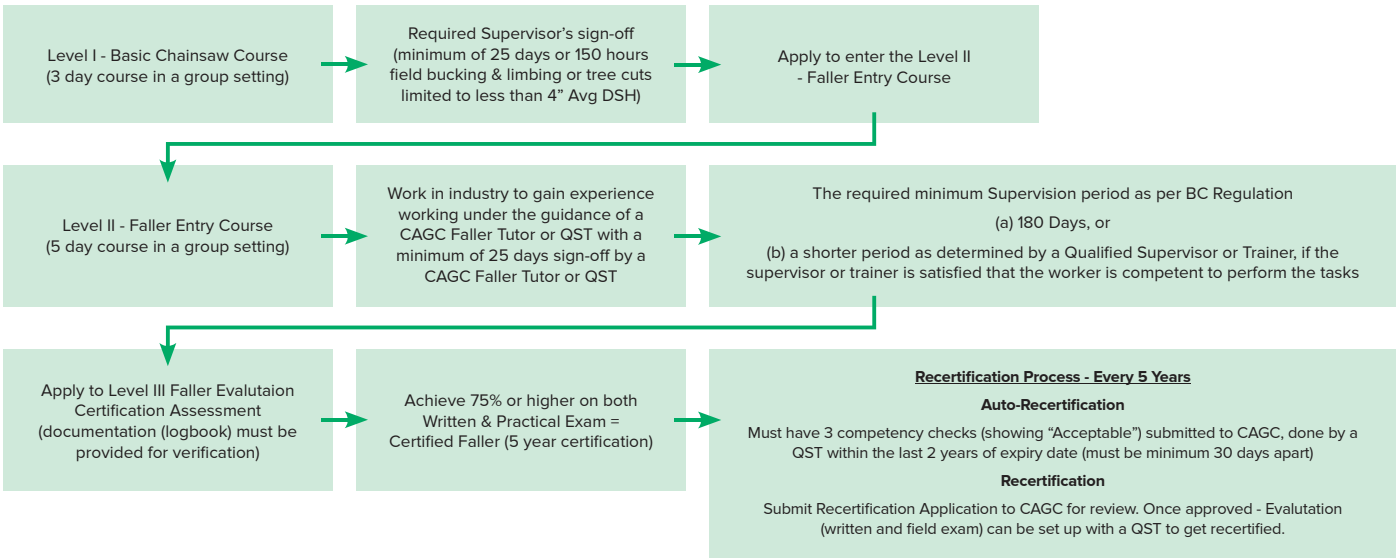
Approved administrators of the BC Faller Training Standard

As Administrators of the BC Faller Training Standard, the BC Wildfire Service (BCWS), the Canadian Association of Geophysical Contractors (CAGC) and the BC Forest Safety Council (BCFSC) have been approved by WorkSafeBC to provide faller training and certification to individuals wanting to become hand fallers. But each organization's faller program differs from the other which is causing some confusion throughout the industry.

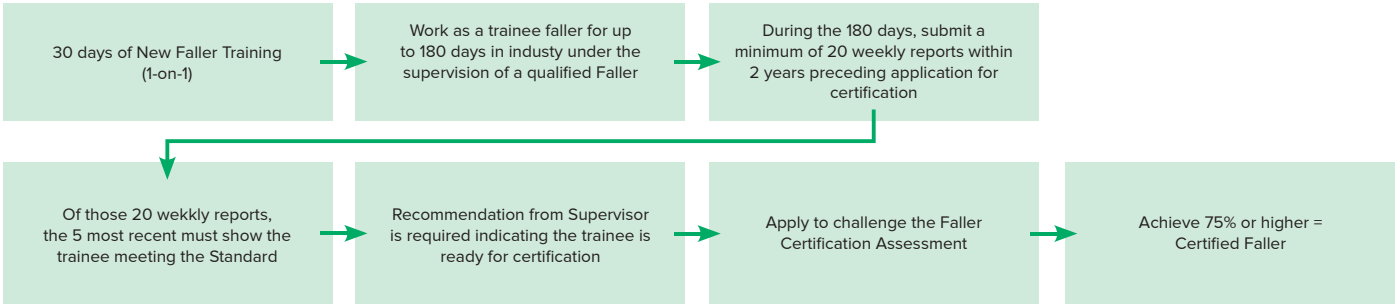
A Certified Faller with certification from any one of the three approved administrators is recognized by WorkSafeBC and permitted to work in British Columbia. However, it is the responsibility of the employer to deem the Certified Faller qualified for the work being performed. As per OHS Regulation Part 1: Definitions - **qualified** means "being knowledgeable of the work, the hazards involved and the means to control the hazards, by reason of education, training, experience or a combination thereof".

To help explain the difference between each approved Administrator's faller program, refer to the flow chart below:

Canadian Association of Geophysical Contractors



BC Forest Safety Council



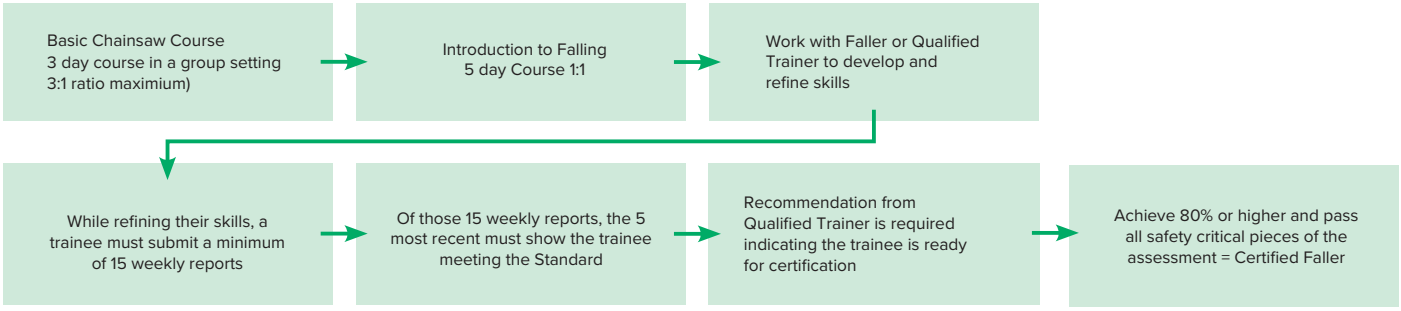
Please note: Once an individual begins training in one stream, they are not permitted to jump to a different stream, mid-training. For example, if an individual completes Level I and II with CAGC, they are not permitted to work under the guidance of a BCWS faller, working towards their certification. Rather, they must work with a CAGC Faller Tutor or QST as per the program requirements.

If you have additional questions regarding the training and certification process, please contact the relevant administrator.

Continued from page 15...

BC Wildfire Service

Note: In order to take training offered by BCWS, the individual taking the training must be an employee of the organization.



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If you have additional questions regarding the training and certification process, please contact the relevant administrator.

BC **Forest Safety**

New Faller Training – Nanaimo Lakes

The most recent New Faller Training (NFT) Course took place in Nanaimo Lakes from March 25 – April 26, 2021. Participants and trainers were required to complete COVID-19 self-assessments prior to attending the program and were also required to stay in their cohort until the course completion to ensure everyone stayed safe and healthy.

The BCFSC along with John Jacobsen, Lead Trainer of the NFT Program would like to thank Mosaic Forest Products for their continued support and understanding of the need for training in our industry, allowing our program to take place on their lands. Special thanks go out to Digger Pond and Chris Vukovic from Mosaic and to Don Bahen and Denny Pement from Coastline Fibre Ltd. who supplied the block for training.

Left to right: Assistant Trainer – Wayne Miller, Trainees – Shea Hickmott-Pilatzke, Brodie Corrigan, and Lead Trainer – John Jacobsen

There is an increased interest in the NFT program and the need for training sites is growing. The BCFSC relies on industry to supply these sites, ensuring that the NFT program continues and is successful. If there is interest in offering sites for the program, please reach out to Marla Guldbransen, BCFSC Manager, Falling Programs.

New Faller Training Site Specs

- Second growth blocks are ideal, usually offered from mechanical falling areas
- Slope up to 60% with portions allowed up to 70%
- Majority of the timber being “round and sound”
- A full course (four trainees) will require +/- 5000 m3 which can include a portion of a block, right of ways and/or multiple blocks
- Prescriptions required for the job will be followed as required, such as felled full length or fully manufactured to specs
- Will also train in old growth and can usually make most sites work

If there are any falling companies that also are interested in taking on successful participants from the NFT course, please reach out to the BCFSC for more information.

Two Faller Fatalities in March 2021

It is with great sadness that the BCFSC Falling Department was notified of two faller deaths in the first two weeks of March.

While the incidents are still under investigation, the preliminary fatality alerts are available on our website.

Fatality Alert - March 1, 2021

A faller was fatally injured at a logging site near Gold River, BC.

Media coverage: Chek News | CTV News

Fatality Alert - March 15, 2021

A faller was fatally injured when he was struck by the top of a Hemlock danger tree at a logging site near Port McNeill, BC.

Media coverage: Chek News | CTV News | Westerly News

The BCFSC extends its sincere condolences to the families, friends and colleagues of the deceased and sympathies to all those affected by these falling incidents. In light of these recent incidents, the BCFSC is gathering information through discussions with WorkSafeBC, fallers and licensees to determine how best to support industry. BCFSC will update information as investigations are completed and information is provided.

Mobile Equipment/Pedestrian Proximity Research Project

The Manufacturing Advisory Group (MAG) is working with the BCFSC to conduct an assessment on some technological solutions to help reduce SIFp (Serious Incident Failure potential) incidents between mobile equipment and pedestrians in sawmills. Previous work has been done in this area but with emerging technologies like cameras and detection devices, MAG feels there are opportunities to develop more advanced controls for these SIFp activities.

MAG has identified some common forklift challenges in sawmills:

- Interacting regularly and in close proximity to pedestrians
- Unloading and loading of different contract drivers such as By-Products, logging and shipping trucks
- Frequent and close interaction with other pieces of mobile equipment
- Tightly congested work areas

BCFSC will be working with Brigade Electronics on this project. Brigade Electronics is considered a world leader in this technology with a proven track record of implementing practical technological solutions for employers to reduce potential SIFp events.

A six-week assessment will be conducted at Gorman Bros. Lumber, West Kelowna Sawmill to pilot and test these potential technological solutions. During this time, the BCFSC will work with Gorman Bros. to obtain feedback on the installation and operation of the equipment and will be gathering information on the effectiveness of the technology in improving the detection of a pedestrian in close proximity to a working forklift. The BCFSC is currently working on the evaluation criteria, surveys and resources required to conduct the six-week trial. The on-site activities are planned to commence in mid-May.

"From a Gorman Group perspective, trialing this line-of-sight and detection technology is the next logical step in preventing mobile equipment-related SIFp's. We've been grateful for the mobile equipment/pedestrian interface safety learnings we've previously gained and implemented from our MAG member peers and the BCFSC. We hope the outcomes of this project will build on our shared priority - the pursuit of driving serious safety risks out of our business" says David Murray, MAG committee Chair and Gorman Group Corporate Safety, HR & Environment Manager.

The following project deliverables were identified by the BCFSC and MAG to help support the sawmill industry:

- Identify appropriate technological solutions for sawmills to reduce Mobile Equipment/Pedestrian SIFp events
- Installation guidance for these technological solutions
- Installer training for technology implementation at worksites
- Operator and worker training on equipment use and identification of limitations (if any)
- Guidance for proper maintenance and inspection activities to ensure the equipment is functioning properly

BCFSC will take the outcomes and learnings and develop resources for industry to aid in the selection, installation and use of these technological solutions to help reduce Mobile Equipment/Pedestrian Interface SIFp events in sawmills.

Mark Your Calendar! New Pellet Safety Foundations Webinar Series

Dr. Fahimeh Yazdan Panah, Director of Research and Technical Development, WPAC

Safety is the foundation of our pellet industry. Our work around safety never ends; we are constantly striving for new ways to improve safety whether it be the equipment we use or the processes that support good, safe decision making.

To achieve this, we have to start with the basic foundations of pellet plant safety. That's why WPAC's safety committee in co-operation with WorkSafeBC, the University of British Columbia Biomass and Bioenergy Research Group, and our media partner Canadian Biomass Magazine are hosting the Safety Foundation Series. This six-part series, focused on Process Safety, has broad application across all sectors and is free and open to everyone. The first part in the series will launch May 18, 2021 at 10 a.m. Pacific; and new webinars will be released every two weeks after. You can find out more here.

Immediately following each webinar, there will be a quiz that participants will need to successfully answer in order to pass the webinar and be issued a certificate. Those who successfully pass the six webinars, will be issued a certificate in Safety Foundation Course.

"We believe this type of training is a first for the pellet industry globally," said Scott Bax, Chief Operating Officer at Pinnacle Renewable Energy and Chair of WPAC's Safety Committee. "We've created the series based on what our committee has observed over the past seven years, choosing the areas where we feel we could have the biggest impact from a safety perspective."

The first two webinars will cover **Bow Tie analysis** which is a simple and effective tool for communicating risk assessment results in order to identify the links between the potential causes, preventative and mitigative controls and consequences of a major incident.

- Bow Tie Analysis Part I: Using Bow Tie Analysis to Assess Combustible Dust Hazards and Controls, Kayleigh Rayner Brown, Research Associate at Dalhousie University.
- Bow Tie Analysis Part II: Using Bow Tie Analysis for Critical Controls Management, Cherie Whelan, Director for SAFE Companies, and Bill Laturnus, Safety Advisor, BC Forest Safety Council.

The next two webinars are focused on **Human Machine Interface and Effective Use of Alarms**. Poor alarm management is one of the leading causes of unplanned downtime in process industries contributing to billions of dollars in lost production every year. This introductory principle-based webinar will help participants to understand how the system should convey and facilitate accurate and timely fault and diagnostic information to operators and support effective plant management. The webinars will encourage attendees to think about how their control systems could be optimized for efficiency, safety and operator detection and decision making.

- Human-Machine Interface (HMI) Part I: Situation Awareness and Effective Alarm and HMI Design Practices, Jenny Coleman, Human Factors Investigator, WorkSafeBC, and Charles Bloom, Senior Partner and Jamie Errington, Senior Partner, Human Centered Solutions.
- Human-Machine Interface (HMI) Part II: A journey to improved situational awareness, Jenny Coleman, Human Factors Investigator, WorkSafeBC, and Brian Grantham, Pulp Manager, West Fraser.

The final two webinars in this series will discuss **Best Practices for Managing the Major Safety Hazards** in wood pellet manufacturing including wood pellet off-gassing, self-heating and silo fires, and combustible dust and gas management. Self-heating, off-gassing and dust/gas explosions are significant challenges for the industry that have already resulted in significant losses of capital investments and tragic loss of life. With the growth of the bioenergy sector, it is important not only that opportunities for bioenergy are implemented in an efficient and economic manner, but also safely.

- Safe Handling and Storage of Biomass Part I: Off-gassing, self-heating and silo fires, Fahimeh Yazdan Panah, Director of Research and Technical Development at Wood Pellet Association of Canada.
- Safe Handling and Storage of Biomass Part II: Combustible dust and combustible gas, Jeff Mycroft, Regional Sales Manager, Fike Canada.

Each webinar is one hour and open to everyone including operating personnel at every level of the pellet plant, supervisors, senior management, control operators, other industry participants, equipment suppliers, and safety professionals. We encourage you to share the news about this new webinar series with your colleagues across industry. You can read more by visiting our website.

For more information, contact:

Fahimeh Yazdan Panah
Director of Research and Technical Development
Wood Pellet Association of Canada
fahimeh@pellet.org

CRITICAL CONTROL MANAGEMENT (CCM)

Breaking New Ground in Pellet Plant Safety

Photo: Courtesy of Skeena BioEnergy

Despite significant safety advancements in the pellet industry, the potential remains for pellet plants to experience major unwanted events (MUEs) such as explosions fires and fatal accidents, that are hard to prevent by traditional approaches to safety.

The Wood Pellet Association of Canada (WPAC) and the British Columbia Forest Safety Council (BCFSC) have partnered to pursue a process known as Critical Control Management (CCM) that already is or will be underway at every WPAC member plant in 2021.

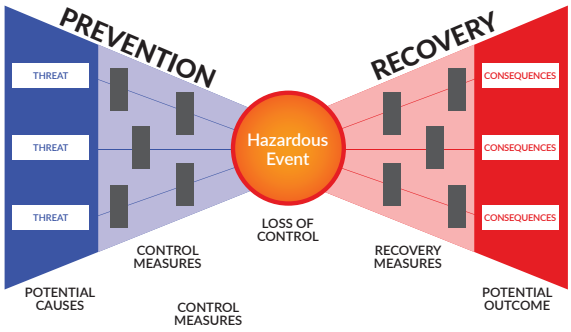
> ""Critical Control Management will help companies understand their equipment better; employees will be able to operate and maintain the equipment safely and improve its reliability; and plant managers will know what activities are most important."
>
> – Gord Murray,
> Executive Director, WPAC

HOW DOES CCM WORK?

Plant operators identify potential MUEs or "Top Events"– like fires and explosions – each one of these Top Events forms the centre of a bow tie. All plausible accident scenarios that could exist around each MUE are considered and then critical controls that would prevent the Top Event are identified.

This approach relies on the Swiss Cheese Model where each slice of swiss cheese has holes and each hole represents a potential safety weakness. But when you layer the slices together, the holes don't line up, they create a collective barrier to safety weaknesses. This is the essence of CCM.

CCM is already widely used in mining, chemical, and oil and gas industries around the world, but it's new to the wood pellet industry.



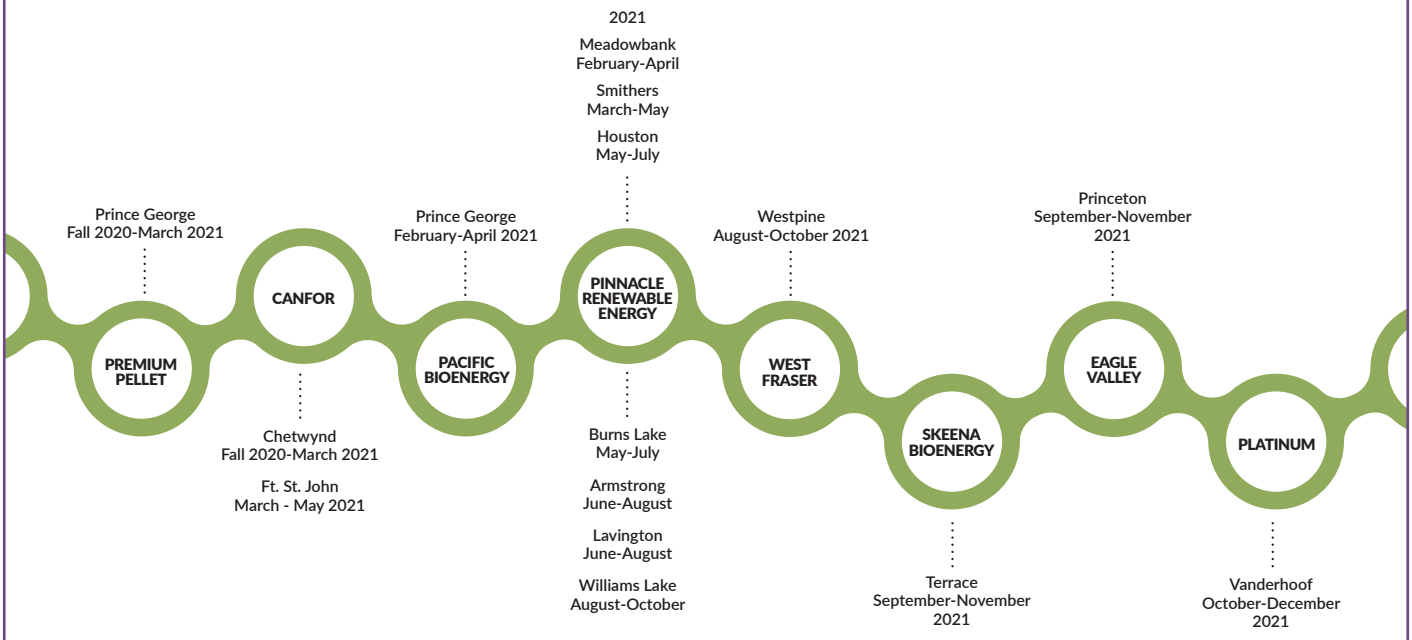
> "The bow tie is a great tool because it gives everyone involved a better understanding of how they need to work together to prevent an incident. We can now manage multiple layers of controls into a single process resulting in better safety at every level."
>
> – Cherie Whelan, BCFSC's director for SAFE Companies

CCM COMING TO YOUR PLANT SOON

The CCM committee, comprised of representatives from WPAC, BCFSC and Dalhousie University, have developed an implementation schedule with the goal of completing bow ties and critical controls to WorkSafeBC by late 2021. In 2021, the primary focus is on potential fires and explosions.

BCFSC Safety Advisors, Bill Laturnus and Tyler Bartels are providing on-site and online support to all 15 operations. They will provide education, training and mentoring in the necessary knowledge and skills required to identify the site-specific critical controls. Further support will help the operations develop their internal systems to effectively manage these critical controls to ensure they operate 100% of the time.

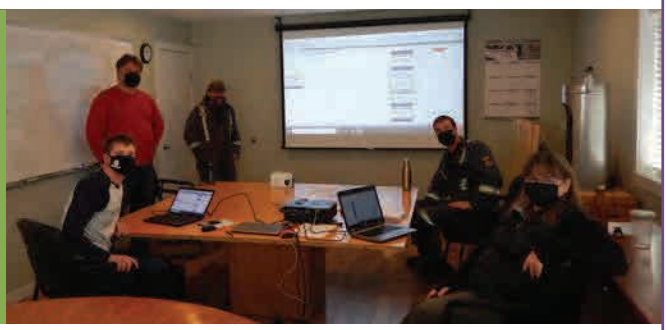
WorkSafeBC is also funding a Dalhousie University Department of Process Engineering and Applied Science research project that will build on this work and transfer this knowledge to employees and employers throughout the wood pellet industry across Canada and internationally.



COMMITMENT TO SAFETY

British Columbia's wood pellet producers are devoted to running safe operations. In 2014, the Wood Pellet Association of Canada established the WPAC safety committee as a forum for industry participants to share knowledge and to work collectively on solving common safety concerns.

FOR MORE INFORMATION
Email: Gord Murray, gord@pellet.org



BC Forest Safety
Safety is good business

DALHOUSIE UNIVERSITY

WOOD PELLET ASSOCIATION OF CANADA

Article submitted from Canadian BioMass Magazine

Achieving a safety culture amid a pandemic

By Gordon Murray, WPAC

Every day, WPAC members and their employees work tirelessly to ensure leading safety practices are implemented and embraced. We know we will be measured by our collective efforts as an industry. Our reputation and the trust of regulators, the general public and the families of our employees depend on this. That we achieved this and more in 2020 was no small feat in the context of a global pandemic.

With the support of our partner, the BC Forest Safety Council (BCFSC), and the commitment of our members from the boardrooms to the plants across Canada, we were able to overcome the challenges of not being able to meet face to face. It meant long, virtual web conferencing, technical glitches and it required at times more patience and perseverance than most have with technology on the best of days.

We entered 2020, with ambitious goals, and we're proud to say that we met most of them and continue to progress several others. Perhaps the one that stands out is an initiative we undertook with BCFSC in collaboration with WorkSafeBC.

After some research, and with guidance and prompting from WorkSafeBC, WPAC's safety committee decided to pursue a process known as Critical Control Management (CCM) which starts with a procedure known as bowtie analysis. We now have all 14 of our member plants and one MDF facility clamoring to be the first to implement it. Together, WPAC and BCFSC, in conjunction with the industry, have developed an implementation schedule with the goal of completing bowties and critical controls to WorkSafeBC by late 2021.

The initiative also caught the eye of university researchers. WorkSafeBC is funding a Dalhousie University Department of Process Engineering and Applied Science research project that will facilitate knowledge and transfer of this work across the wood pellet industry in Canada and internationally.

That same year, our safety committee decided to produce an educational video to help operators minimize the risks associated with syngas. Several partners quickly stepped up with technical and financial support. These include the University of British Columbia Biomass and Bioenergy Research Group, BC Forest Safety Council, Bio Mass Canada Cluster, and Agriculture and AgriFood Canada. This group has now released the seven-minute video Best Practices in Managing Combustible Gas which describes how and where combustible gas will accumulate during the pellet manufacturing process and gives recommendations for reducing risk.

In addition, WPAC, in co-operation with the BC Forest Safety Council, WorkSafeBC and media partner Canadian Biomass, held the Belt Dryer Safety Symposium. The purpose of the symposium was to share the learnings from these incidents and for individual operators to share in-house safe operating procedures with their industry colleagues. There were more than 70 participants and, at the end of the event, they agreed to form a Belt Dryer Working Group to review past incidents and lessons learned for safer uses of belt dryers in our industry.

That brings us to 2021. WPAC's safety committee, which is responsible for developing and communicating strategies for continuous improvement has released its 2021 safety work plan with a focus on:

1. **Critical Control Implementation**
   Complete Bowties and critical controls to WorkSafe BC by end of 2021.

2. **Improving Belt Dryer Safety**
   Establish a working group to develop safer operating procedures.

3. **Equipment Isolation**
   In cooperation with Dalhousie University, prepare white paper and host a symposium on best practices.

4. **Plant Operator Training and Use of Alarms**
   With BCFSC, complement development of the basic plant operator competency assessment and host webinars.

5. **Local Nitrogen Supply Initiative**
   Complete and share information on stationary and mobile nitrogen systems, as well as recommendations for effective emergency response in case of self-heating and silo fire.

6. **Training and Supervision of Workers**
   Complete and rollout Safety Foundation series videos and webinars.

7. **Incident Reporting**
   Evaluate how we report in collect, track and report incident data.

8. **Communications**
   Continue to hold monthly Safety Committee calls, host webinars and distribute communications that promote and foster a safety culture across the industry.

While these may feel like uncertain times, one thing we can be sure about is that safety will remain our foremost priority. We also know that our success will be determined by our partnerships, by listening to our members and their workers, and communicating effectively every day.

The 2021 Work Plan is available here.

WPAC's safety committee works in close cooperation with WorkSafeBC and the BC Forest Safety Council. The committee welcomes new members. If you are interested, please contact Scott Bax or Gordon Murray:

Scott Bax, Safety Committee Chair
Email: **Scott.Bax@pinnaclepellet.com**
Tel: (604) 787-3176

Gordon Murray, Safety Committee Secretary
Email: **gord@pellet.org**
Tel: (250) 837-8821

What's all the fuss about Fitness

By Dr. Delia Roberts

The condition of being physically fit and healthy can mean quite different things to different people, especially when you add on the idea of being fit to work. What is a given, is that of all the various treatments and approaches, the one that has been consistently proven to improve health, performance, well-being and quality of life is physical fitness. Yes, this one simple thing will not only improve your endurance, strength and agility, it also helps with everything from the inside of your blood vessels to the function of your white blood cells to your sex life. This isn't surprising when you consider that our bodies' evolved to do physical work. Before the invention of machines the physical labour that was needed to survive was more than enough to keep our bodies strong. But nowadays many of us spend long periods of time at a desk, or in a vehicle or machine – and without hard physical work, we lose the capacity to generate force, utilize fuels, transport nutrients and wastes, and repair damaged tissues. In short, we cease to function well.

So we know that we need some level of physical activity to provide good health and well being, but what about performance? Here's where things start to get complicated, because once again, performance means different things to different folks. At one end, you have jobs like tree planting, where a third of the planter's body weight is carried 15 km or more over difficult terrain, and you have to get those trees in the ground fast if you want to make money. Compare that to the other extreme, where a log hauler sits in their machine all day, but repeats the same arm and leg movements thousands of times – and has to have the focus and reactions of a professional hockey player in order to keep more than 60,000 kg moving safely down the road. In between, you might have an engineer whose daily job is desk-work, but then has to hike up through steep slash to lay out a block. In each of these situations, the risk of injury is high if the physical capacity to do the work is less than what is needed to get the job done. And the greater the physical reserve, the more energy there will be to do the job well, stay alert, and enjoy the rest of the day outside of work.

But just 'getting fit' isn't a simple task. If it were, we would all be able to maintain the level of fitness that we want. The reality is that it's difficult to know how to build and maintain physical fitness between work, family and other responsibilities. None of us have a lot of extra money or time, and with the multi-billion dollar fitness industry trying to sell you the latest trend it's hard to know what is marketing and what is for real. So here's a quick guide to help you find a good fitness program that will not only meet your health and performance goals, it will fit your lifestyle so that you can make it a permanent change.

Your first step towards fitness is to ensure that there aren't any safety concerns. If you haven't been exercising, have any kind of pre-existing medical condition, a family history of disease, or have suffered a previous musculoskeletal (MSK) injury, consult your primary health care provider to determine if there are any health risks that an exercise program might cause problems with.

Next, choose your current activity category:

Sedentary – This is you if you get less than 30 minutes of moderately intense physical activity (where your breathing is deep enough that you have to pause for a breath while carrying on a conversation) per day or a total of 150 minutes per week. Your goal will be to build up to this basic level of fitness and reap the many health and wellness benefits that will result.

Intermittent exerciser - This is you if your work and lifestyle are mostly sedentary but you occasionally have to do hard physical work. Also known as the weekend warrior, most days/weeks you do not meet the basic level of physical activity required for health, but sometimes because of work, projects at home or sports activities you do go hard. You have a high risk if injury because your systems are not accustomed to hard work, and yet the demands you place on your body require you to generate a fair bit of strength, power and/or endurance.

Seasonal - Your activity level is quite low for most of the year, but you engage in physically demanding work and/or other activities during certain seasons of the year. Often people in this category rely on the first few weeks of the activity or work to generate the fitness that they need to get the job done, which means that at the start of their season their fatigue levels and risk of injury are very high. It's hard for your body to respond and build capacity when all your energy is going to getting through the day, so unless you have at least three to six weeks of slowly ramping up your activity level, this is not likely to give you a successful season.

Sustained – You work hard every day, far exceeding the minimum activity level required for health. Your needs are for recovery tools, to help your body cope with the cumulative stress of hard physical work, long days, and managing all the other stresses in your life.

Continued on page 23...

Health and Wellness

Continued from page 22...

Each of these four categories requires quite a different approach to building and sustaining good physical fitness habits, but here's where to look for some evidence-based information for each of them. These programs are all part of the Fit to Work series, designed specifically for folks working in the forestry industry.

Sedentary. The most important aspects of any program that you choose is that you enjoy it and it fits into your lifestyle. Since you haven't previously been exercising, your goal is to get moving, and build gradually - which you are far more likely to do if it is already part of your day and you enjoy doing it. The Fit to Drive program will explain what kinds of activities will be helpful, how to incorporate them into your day, how much you should be doing, and how to stay motivated when you don't want to do your workout. The program is free and can be found on the BCFSC website starting on page 81 of the Power Driving Manual.

Intermittent Exerciser. Since your bouts of physical activity only take place every now and then, it's not likely that they are enough for you to build and maintain the physical fitness you need to get your job done safely and well. This means that like those at the Sedentary level, you will want to find activities that fit into your lifestyle on a regular basis so that you will stick with your program and maintain your fitness throughout the year. The Fit to Log program is available on the BCFSC website free of charge, and includes sections on building and maintaining fitness. Beginning on page 97, you will find specific exercises for your back, knees, shoulders and neck, which can be helpful if you have had a previous injury or the demands of you activity stress a particular joint. Pages 129-138 explain how to build endurance capacity quickly, with two different levels of a six-week program. For those starting from the Sedentary level, basic programs can be found starting on page 151, and motivational help on page 163.

Seasonal. Summer forestry jobs can often be very physically demanding, so if you want to make money and not get hurt, it's a good idea to come into the job with a good level of fitness. Depending on how much time you have to do this, and the specific needs of the job you will also find some good resources on the BCFSC website. The Fit to Plant program offers a free, planting specific eight-week program, or if you are short on time, try the 10-day Desperate Planter's Last Chance to build some fitness in a hurry. If your summer forestry job isn't tree-planting you likely won't need the same level of preparation for your arms, so the two levels of programs provided in the Fit to Log manual described in the Intermittent section above are a good place to start.

Sustained. You work hard, all day every day, which takes a toll on your muscles and joints. Energy management and recovery strategies can go a long way to ensuring that you have a long and productive career. Check out the resources in the Fit to Log program, provided free of charge on the BCFSC website. The Power Eating section that begins on page 7 explains how to make sure that your body has enough of the right fuel to perform well day after day. This can help keep you strong and reduce fatigue on a daily basis. Specific joint exercise found on pages 103-125 can help lower any pain from previous injuries and help you maintain your posture and muscle strength. Lastly, the section on stretching (pages 139-148) will show you how to use even a small amount of stretching to relax tired muscles at the end of the day.

Fitness is a lifelong goal, one that can provide you (and your family) with good physical and mental health, reduce pain and fatigue and increase well-being. It takes time and effort, but for every bit of energy you put into it, the rewards are tremendous. People who exercise regularly have lowered rates of pretty much every disease, from heart problems, to diabetes, to cancer and even depression. It's a positive change for yourself and your family that you can make today, without special equipment or money. Just put on a pair of good shoes, grab a friend and head out the door for a brisk walk. Each step you take is one toward a longer and better life.

New Healthy Worker Resources

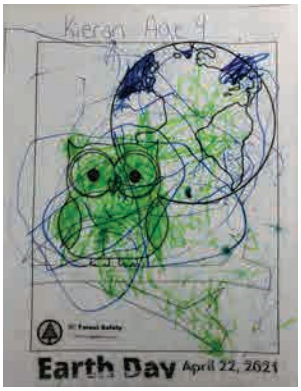
The Healthy Worker Series of crew talks, posters and backgrounders was created to help forestry workers and supervisors talk about common health challenges and ways to become healthier.

The latest resources on obesity and mental health have recently been added to the BCFSC Healthy Worker Series.

Kid's Corner

Colouring Contest

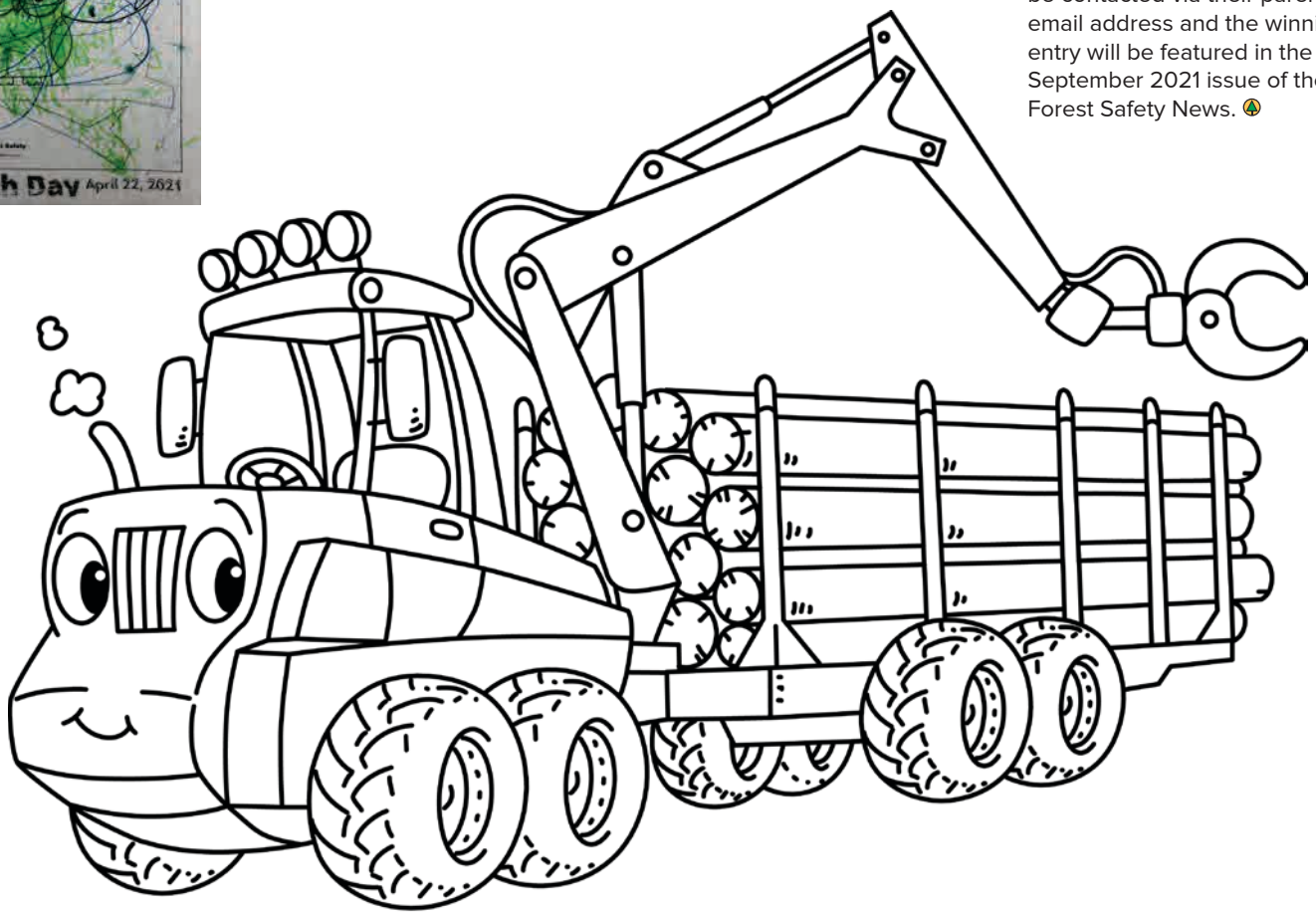
Thanks to everyone who entered our March colouring contest. **Congratulations to Kieran, age 4**, whose name was picked from our random draw. Kieran wins the DRIVEN Toy Logging Truck and we will be sending a special gift to everyone else just for entering!



For our June issue, send us a picture of your artwork and enter to win another of our DRIVEN Toy Logging Trucks complete with a crane arm and logs. Have your mom or dad, grandma or grandpa or guardian email us a photo of your artwork with your first name and age and we'll put your name into the draw.

How to Enter:

- Colour the Forwarder or make your very own drawing.
- Have an adult take a picture of your artwork and email it with your name, age and your mom/dad's email address to **editor@bcforestsafe.org**
- Submit your entry by 4pm, Friday, July 30, 2021.
    - Kids aged 3 – 12 are eligible.
    - All entries will be put into a random draw to win the toy logging truck. The winner will be contacted via their parent's email address and the winning entry will be featured in the September 2021 issue of the Forest Safety News.



ABOUT Forest Safety News

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Have a story, letter to the editor, safety tip, ideas or photos? Please send submissions to:

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FOREST SAFETY NEWS
SEPTEMBER 2021 • Issue 3 / vol. 8

Communicable Disease Prevention

On July 1, 2021, BC moved to Step 3 of the BC Restart plan as vaccinations became more widely available to British Columbians. Even though the overall risk of COVID-19 transmission has been steadily declining, it has not disappeared entirely. But given the encouraging results for workplaces across the province reporting declines in COVID-19 exposures, the Provincial Health Officer determined the lessons learned from the implementation of COVID-19 specific safety plans could transition to incorporating the important principles and guidelines into communicable disease prevention into all workplaces.

What this means for employers is that they are no longer required to maintain a COVID-19 Safety Plan and can instead evolve their plan to communicable disease prevention. Although the corona virus still circulates, other communicable diseases viruses, such as seasonal influenza, norovirus and others also require careful consideration in helping reduce the spread of infectious illnesses.

The BCFSC has created a dedicated webpage with various resources relating to Communicable Disease Prevention (CDP). There is information to help employers develop their CDP Safety Plans and Policies and tools such as hygiene best practices and cleaning/disinfection guides to help with prevention measures to reduce the risk of communicable disease and maintain a healthy workplace.

The webpage also provides links to WorkSafeBC Communicable Disease resources such as the Communicable disease prevention guide for employers, the guidance on mask use in non-healthcare setting and the OHS Guideline to communicable disease prevention.

If you are unsure of which information you need to support your organization, the BCFSC is here to help. We have Safety Advisors all over BC who can help you put your plans into action. Contact us with your questions.

Welcome to the Fall edition of Forest Safety News, covering news about safety topics in forestry. This is YOUR safety newsletter. We look forward to your input and feedback! Email the editor at **editor@bcforestsafe.org** or call **1-877-741-1060**.

What's Inside:

What's New

Here is the latest on what we have to offer since July 2021. Find direct links to safety alerts, industry-specific resources, industry information and more to download and/or share with employees, industry and safety peers. And make sure to follow us on social media to stay up-to-date with the latest news. Follow us on Facebook, Instagram, LinkedIn and Twitter.

Radio Use and Road Calling Procedures Video – Knowing how to use a mobile radio and following radio road calling procedures is critical to the safe use of resource roads.

BCFSC Annual Report – download the 2020 Annual Report

BCFSC Ombudsperson Report – download the 2020 Ombudsperson Report

Communicable Disease Prevention – BCFSC has a new webpage dedicated to Communicable Disease Prevention to help employers transition from COVID-19 Safety Plans and develop communicable disease plans in their place.

Training Calendar – Our 2021 Training Calendar offers both in-classroom (with COVID-19 safety protocols in place) and online courses.

Safety Alerts – Alerts provide timely information on incidents and issues which cause, or result in, serious or fatal injuries. The alerts we send by email and post on our website are intended to raise awareness and educate industry so we can learn from each other's experience and effort. Here are the latest alerts from BCFSC and industry.

- **BCFSC Safety Alert of the Month** – VHF Radio Best Practices
- **Manufacturing Weekly Safety Alert** – click on the link to see the latest weekly alert
- **TAG Safety Alert** – Equipment Fire / Excavator

To subscribe to our safety alert emails – Click Here

Industry Links

WorkSafeBC Announcements – check here for the latest information on WorkSafeBC policy and regulation updates, resource development, risk advisories and more.

WorkSafeBC Enews – subscribe to Insight; WorkSafeBC's policy, regulation and research division e-Newsletter, Health and Safety Enews, Young Worker Enews and more.

Interfor Sources PPE Options for Women in Forestry

The forestry workforce is diverse. The variety of occupational roles runs the gamut across harvesting, transportation, manufacturing, silviculture, etc. with workers coming in all shapes and sizes. With a steady increase of women working in BC forestry, the search for Personal Protective Equipment (PPE) that fits properly can be a struggle, a distraction, or more concerningly, a deterrent.

PPE is a crucial safety measure to protect workers from injuries. Ill-fitting PPE may not protect a worker from hazards or may not function in the manner for which it was designed. Ill-fitting PPE can jeopardize worker safety and elevate the risk to injury not just to those wearing it but to their co-workers. Equipment that is designed for men is not likely to fit women properly due to differences in body size, height and body composition. Often, women are left with little choice but to "make-do" with what is available.

Some good examples of how poor fit can affect safety are common with required PPE like gloves, safety goggles and hi-vis vests. If gloves do not fit right because of a smaller palm circumference and shorter, narrower fingers – the excess material can get caught in equipment. If a woman with a small face must wear shop goggles, the gaps they leave at her temples may allow flying debris from the machine to enter her eyes. Or if a hi-vis safety vest falls off her shoulders because it is too loose, then there is a risk of it getting snagged or entangled.

Continued on page 3...

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Safety boots and fall-arrest harnesses can also be difficult pieces of PPE for female workers to find. A common industry practise is for women to simply wear a man's boot size that is two sizes smaller. But a typical woman's foot is both shorter and narrower, so a smaller boot may be the right length but not the right width. Additionally, men's shoe sizing begins at a women's size 7 – which already is too large for some. When it comes to fall-arrest equipment, women's bodies often differ in body composition thus fall-arrest harnesses may not lend themselves well to unisex sizing either. Body weight and stature alone are not the only factors to consider in unisex sizing since the differences in a woman's chest, hips and thighs can affect the angles that straps fit into the harnesses.

Lana Kurz, Safety & Environment Manager for Interfor's Western Operations and a BCFSC Board Member, and her team from Interfor have developed a list of PPE options that are suited to fit a smaller frame, height, shoe size, and other fit parameters. This list includes PPE categories from work boots to apparel such as hi-vis vests, gloves, chainsaw pants, or eyewear, with a source list of stores, locations, and direct weblinks for online ordering.

"Everybody should be able to find safety products that fit comfortably and keep them safe," says Lana. "This list will help workers find products available in all sizes and configurations to make sure they are outfitted in gear that not only fits well but protects them in the way it was intended."

Download the **PPE Source List for Women** from the BCFSC website.

Autumn Roads Ahead

By Michele Fry, Director, Communications

As the leaves start to change and cooler days and nights set in across BC, the falling leaves are a sign that road conditions and driving patterns are also about to change. The transition from summer to fall should prompt you to think about what changes and adjustments will be required in your driving skills to ensure you and others stay safe on the road.

Consider these important tips when you start to think of the modifications you'll need to make.

Back to School

With kids getting back to class, its important to remember there will be more pedestrian traffic, changes to speed zones as well as school buses to consider while driving. It's always good practice to expect the unexpected and look out for safety risks such as kids darting from cars, kids cycling or walking to school and kids getting on and off buses.

School Zones – The school zone speed limit is 30 km/hr between 8AM-5PM on school days unless otherwise posted. Eliminate the mistake of driving along and then suddenly realizing you've been driving at regular speed within a school zone. This is a common mistake but when it comes to children's safety, shrugging it off with a "whoops" just doesn't cut it. Slow down, be cautious and pay extra attention in school zones.

School Buses – Across BC, over 110,000 children ride the bus from September to June each school day. Parents send their children off to school, trusting their child will get to school and back home safely each day. They are counting on drivers to do the right, **law-abiding** thing by coming to a complete stop when approaching a school bus with its red lights flashing. Every time someone doesn't stop for the bus, a child's life is at risk. Be patient, be courteous and respect the rules of the road.

Remember the rules: SLOW DOWN | STOP | KNOW THE LAW

- In BC, drivers must stop for school buses with flashing lights whether approaching from the front or rear. The vehicle may not proceed until the school bus moves on or the driver turns off the lights or pulls in the stop sign.
- If approaching from the front, stop at a safe distance to let children cross the road. Don't move until the lights stop flashing and the bus moves forward.
- All school buses must stop at all railway crossings, so be prepared to stop yourself. The bus does not use its flashing red lights for this, so exercise caution.

School Crosswalks – With students heading back to school, pedestrian traffic will increase. In BC, almost 20% of all pedestrian accidents involve children under 15 and about 60% of those accidents occur during the morning, noon and afternoon peak school hours. Research shows that children perceive traffic differently than adults and their sensory skills may put them at a disadvantage in traffic situations. Young children may:

- Assume cars can stop instantly
- Think if they can see a car, the driver can see them
- Have difficulty judging speed and distance
- Have a field of vision one-third narrower than an adults
- Have difficulty figuring out the direction of sounds
- Be easily distracted, lost in thought or impulsive
- Have no sense of danger
- Cannot perceive complicated traffic situations
- Overestimate their knowledge and physical strength and speed

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Industry News

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Familiarizing and refreshing your knowledge on crosswalk rules and regulations will ensure everyone's safety on the road. It is important to yield to all pedestrians at marked crosswalks but more importantly to stay extra vigilant at school crosswalks. If there is a crossing guard, follow directions. And remember this rule of thumb - it's safest for drivers to wait for as long as it takes for all pedestrians to reach the curb on the other side.

Foggy / Wet Weather Conditions

For the most part, the autumn months that lead into winter will bring rain, fog, wind and the start of the snow season in BC. No matter what part of the province you live in, it is almost certain that you will be required to drive your vehicle in rainy, foggy, windy or even snowy conditions at some point. With unpredictable weather patterns becoming more common, being prepared to drive in adverse weather conditions just makes good sense.

Driving in Rain – Whether a sprinkle or a heavy downpour, driving in rain can be one of the most difficult driving situations a driver will encounter. And with the extended dry spell BC has encountered this summer, there are increased risks as everyday build up on road surfaces have accumulated. Without frequent showers to wash the build up away, substances like oil, grease, rubber & tar form a thin layer on the road surface. When the rain eventually comes, this build-up rises to the surface and causes the roads to become very slippery. Research indicates that accident risks increase on the rainy days that follow extended periods of dry, hot weather so drivers need to be extra cautious when the rain starts up again.

Rainy conditions, regardless of wet roads after dry spells or continuous rainy/wet conditions, are directly associated with higher accident rates. Knowing how wet roads and reduced visibility affects the way your vehicle handles will help you drive safely in rainy, wet conditions. prevail

- Double check your vehicle's equipment - check your windshied wipers to ensure they are properly installed and in tip-top shape to work efficiently and effectively to handle all types of rain, top up your wiper fluid, check your tire pressure and make sure your tires have good traction.
- Slow down, maintain a safe distance and avoid heavy braking.
- Turn on your headlights – even in misty or light rain conditions.
- Watch out for standing water – driving through standing water and puddles can not only cause hydroplaning in your vehicle but also hazardous water cascades to passing vehicles which can cause startling windshield blindness to other drivers.
- Ventilate your car – rain causes humidity levels to rise which can result in foggy interior windows. Set your vehicle's temperature control systems to maximize air flow and position the vents to reduce the likelihood of foggy windows.

Driving in Fog – Even if you're a seasoned pro behind the wheel, fog can make driving difficult and dangerous. No matter how dense, driving in foggy conditions requires extra special care and attention. The key is to remember that everyone is having trouble seeing, so play it extra safe. Consider delaying your trip if possible but if you are caught in foggy conditions – follow these safety tips:

- Slow down gradually and drive at a speed that suits the conditions. Avoid sudden stops and keep a sharp eye out for brake lights in front of you and headlights behind you by checking your mirrors.

- Make sure the vehicle's full lighting system is on:
  - Use your low-beam headlights.
  - If you have fog lights, use them in addition to your low beams.
  - Don't use your high beams — they bounce back at you, which makes it even harder to see.
- Be patient and remain calm.
- Use pavement markings to help guide you using the right edge of the road as a guide, rather than the centre line.
- Maintain a safe following and braking distance.
- Look AND listen for any hazards up ahead.
- Stay alert and reduce distractions by turning off your cell phone.
- Keep your mirrors and windows dry and clean to maximize visibility.
- Watch your speed and don't pass if its not necessary.
- Pull off the road to a safe location if conditions become unsafe. Engage your emergency flashers, keep your low-beam headlights on and wait for the conditions to improve.

Distracted driving

We all know distracted driving is against the law but its always a good reminder to understand what constitutes distracted driving. Leave the coffee cup in the holder and cell phone tucked away so you can pay close attention while driving. Anything that takes your attention away from driving, like chatting with passengers, eating or drinking, adjusting radio or vehicle settings can contribute to distracted and inattentive driving. When you're behind the wheel, focus on the road.

No matter what the reason, whether you drive all day for work or to simply get from point A to point B, whenever you are out on the road, it is everyone's responsibility to understand the conditions, abide by the rules of the road and always drive responsibly to ensure not only your own safety but the safety of other drivers and road users.

Resources:

BCAA - Back to School Traffic Safety

Road Safety at Work

Shift Into Winter

ICBC – Driving in Poor Conditions

ICBC - Distracted Driving

WorkSafeBC Board of Directors Approves the 2020 Amendments to the Occupational Health and Safety Regulation

As of September 1, 2021, the 2020 amendments made to the Occupational Health and Safety Regulation are in effect.

At its April 2021 meeting, WorkSafeBC's Board of Directors approved the amendments in relation to Part 6: Restricted intervals for pesticide application, Part 8: High visibility apparel and safety headgear and Part 16: Mobile Equipment of the Occupational Health and Safety Regulation. These amendments will be of interest to forestry workers with respect to hi-vis apparel, safety headgear and mobile equipment.

To review the amendments, click on the links below. Strikethrough versions of the amendments with explanatory notes are included and the deletions in the regulatory amendments are identified with a strikethrough with the additions in **bold text, highlighted in yellow**.

- Part 6, Restricted intervals for pesticide application
- Part 8, High visibility apparel
- Part 8, Safety headgear
- Part 16, Mobile equipment

These amendments were posted online for feedback during the public hearing process. Stakeholder feedback received is available for review on the WorkSafeBC website.

WORK SAFE BC

WORKING TO MAKE A DIFFERENCE

worksafebc.com

WorkSafeBC Consultation on Proposed Amendments to the Occupational Health and Safety Regulation

WorkSafeBC's Policy, Regulation and Research Division is requesting feedback on proposed amendments to the Occupational Health and Safety Regulation.

The consultation phase provides stakeholders an opportunity to share feedback before the proposed amendments are taken to public hearing.

There are two proposed regulatory amendment packages under review:

- Part 3, Minimum Levels of First Aid
- Parts 14 and 19, Inconsistent Crane Misadventure and Zone Limiting Devices in Tower Cranes

View the proposed regulatory amendments and information on how to provide feedback.

Please provide feedback by **4:30pm on Friday, October 8, 2021**.

Work-Related Deaths & Injuries

For 2021 year-to-date there have been four work-related deaths in the BC forestry industry. Two were reported in March and most recently, two in May. We extend our deepest condolences to the families and friends of the deceased fallers and our sympathies to all those affected by these tragic incidents.

Recent work-related deaths reported to WorkSafeBC

Injury: Fatal
Core Activity: Logging road construction or maintenance / Excavator operation
Location: Lower Mainland
Date: 2021-May
A worker had been operating an excavator, conducting road maintenance at a remote forestry workplace. The worker left to purchase parts to repair the excavator. As the worker was returning to the camp on a resource road, the worker's vehicle left the road and rolled down a steep slope.
Read the BCFSC Fatality Alert - May 13

Injury: Fatal
Core Activity: Tree planting or cone picking / Field work services
Location: Northern BC
Date: 2021-May
A worker succumbed to COVID-19.
Read the BCFSC Fatality Alert - May 18

Recent work-related incidents reported to WorkSafeBC

The following sample of work-related incidents recently reported to WorkSafeBC may help prevent similar incidents in your workplace.

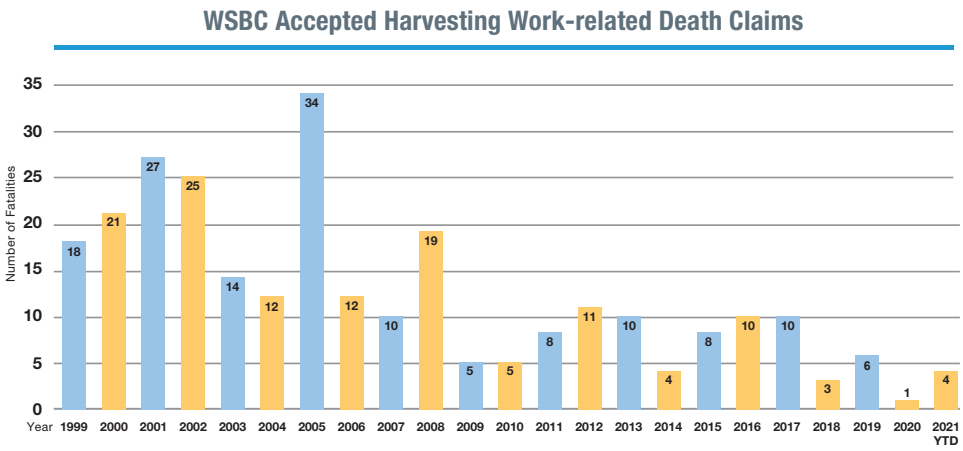
HARVESTING

Injury: Close Call
Core Activity: Integrated forest management
Location: Vancouver Island/Coastal BC
Date: 2021-Jul
A rubber-tired supersnorkel (line loader), accompanied by a pilot car, was travelling on a resource road when the boom of the snorkel contacted and snapped one of three 138 kV power lines. The operator of the supersnorkel and the driver of the pilot car were not injured, but the incident caused a ground fire within the powerline right-of-way. The fire was extinguished the same day by local firefighters and two helicopters.

Injury: Fractured vertebrae
Core Activity: Brushing and weeding or tree thinning or spacing
Location: Northern BC
Date: 2021-Jul
A worker was conducting manual tree-topping activities on a spruce tree about 130 feet tall. The worker had finished topping the tree and was rappelling down when they slipped and fell 35-40 feet to grade.

Injury: Burns
Core Activity: Forest firefighting
Location: Interior BC
Date: 2021-Jul
A worker using a handheld drip torch was suddenly engulfed in flames.

Injury: Close Call
Core Activity: Logging road construction or maintenance / Integrated forest management
Location: Vancouver Island/Coastal BC



This information represents the number of work-related deaths by year in BC, up until July, 2021.

Date: 2021-Jun
Rock blasting for road construction in a remote forestry operation was being conducted under the direction of a certified blaster. Before the blast, the blaster's helper drove a company truck out of the blasting area but not out of the danger area. When the blast went off, the helper saw incoming fly rock ejected from the blast and took refuge under the truck. The fly rock struck the truck but the worker was not injured.

Injury: Multiple injuries
Core Activity: Tree planting or cone picking
Location: Interior BC
Date: 2021-May
A worker was operating an ATV, delivering boxed seedlings to the field planters. As the ATV crossed a natural gulley, it rolled over and the worker was injured.

Injury: Injuries to upper body
Core Activity: Integrated forest management
Location: Northern BC
Date: 2021-May
A manual tree faller was bucking a cedar tree (5 feet in diameter) on a 70% slope. As the cut was being completed, the top portion of the tree pivoted, striking the worker and dragging them up the hill about 15 feet.

MANUFACTURING

Injury: Lacerated hand
Core Activity: Wood product manufacturing
Location: Vancouver Island/Coastal BC
Date: 2021-Jul
As a worker was operating a custom-guarded automated radial arm saw, one of the worker's hands contacted its running blade.

Injury: Heat Exposure
Core Activity: Planing mill
Location: Northern BC
Date: 2021-June
While performing cleanup activities in a planing mill during a heat wave, a young worker lost consciousness.

Injury: Close call
Core Activity: Sawmill
Location: Interior BC
Date: 2021-June
A mill was destroyed by fire. Workers who were on site at the time were not injured.

Injury: Close call
Core Activity: Sawmill
Location: Northern BC
Date: 2021-May
An early morning fire started in the debarker room of a wood chip plant. A chip truck driver noticed smoke and notified mill supervision. The room sprinkler system activated. Mill staff fought the fire and summoned the local fire department, and the fire was extinguished. The fire began inside a hydraulic valve bank cabinet that contained electric baseboard heaters. Combustible dust was not involved in the incident.

TRANSPORTATION

Injury: Close call
Core Activity: Dry land sort / Log hauling
Location: Vancouver Island/Coastal BC
Date: 2021-Jul
A loaded tridem-drive logging truck with a tri-axle trailer was parked on a weigh scale platform at a dryland sort operation. Once the load was weighed, a log stacker secured the load with its grapple and started to lift it off. The load was raised high enough to clear the stakes and the operator was about to back up when the hoist cable broke, causing the full load to fall back onto the truck and trailer. The truck operator, who was outside of the cab, was not injured but the truck and trailer, as well as the weigh scale, sustained major structural damage.

Injury: Fractured vertebra, lacerations
Core Activity: Integrated forest management
Location: Vancouver Island/Coastal BC
Date: 2021-Jun
A worker was preparing to move a lowbed (truck and trailer). The worker climbed onto the back of the truck with a tire bar to try to get the fifth wheel into position to attach the trailer. When the worker applied the tire bar it slipped, causing the worker to lose their footing and fall off the truck. The worker struck the frame of the truck before landing on the ground about 4 feet below.

Injury: Injuries to upper body
Core Activity: Log hauling
Location: Interior BC
Date: 2021-Jun
A logging truck travelling on a two-lane paved road missed a corner, lost control, and rolled into a ditch.

Injury: Close Call
Core Activity: Cable or hi-lead logging
Location: Vancouver Island/Coastal BC
Date: 2021-May
Travelling on a forest service road, an off-highway truck with low-bed trailer transporting a super-snorkel log loader contacted a single phase of a 138-kV power line.

Injury: Multiple injuries
Core Activity: Log hauling / Integrated forest management
Location: Vancouver Island / Coastal BC
Date: 2021-Apr
As the trailer on a self-loading logging truck was being unloaded, the loading attachment, complete with the seat, broke free of the turret, sending the operator to the ground.

SAFE Companies Audit Deadline Extended

All audits due in July or August 2021 have been extended to September 30, 2021 in support of the provincial state of emergency due to the wildfires.

Companies are required to submit audits in 2021 to meet their SAFE and COR program requirements. The audit needs to cover the 12 months prior to the audit date.

Get the forms and templates you need to help you with your SAFE Companies audit submission. Use the IOO forms and resources for Individual Owner Operator audits and use the SEBASE/ISEBASE for small employer audits.

Conversion of BC COR to SAFE Certification

By Martin Ridgway, SAFE Companies Supervisor, Quality Assurance

BCFSC makes every effort to ensure a level playing field for bidding on forestry contracts. The conversion process has been working for several years for select companies. BCFSC is pleased to announce that all companies with WorkSafeBC Certification of Recognition (COR) certification through any other BC COR certifying partner can obtain SAFE Companies Certification.

This certification is available to any AgSafe, BCCSA, ESC, go2HR, MSABC or SafetyDriven COR-certified company working in the BC forestry sector but there are exceptions which include:

- The company seeks a forestry COR certification in addition to the existing COR certification.
- The company wants to SAFE-certify one or more of its classification units (CUs) already assigned or aligned with forestry.
- The company has a WorkSafeBC forestry-aligned classification unit.

In these cases, the company must follow the regular SAFE Certification process.

Furthermore, BASE-sized conversion audits no longer have a requirement for additional questions to be added to the COR audit. Results from several years found that there was no additional safety certainty added by this extra cost.

If you have any questions about this, please contact us by email at **safeco@bcforestsafe.org**.

WorkSafeBC Invites Stakeholder Feedback Regarding Workplace Status

WorkSafeBC's Policy, Regulation and Research Division is releasing a discussion paper on **determining workplace status** with options and draft policy to stakeholders for comment.

"Workplace status" refers to whether someone is an employer, worker, or independent operator. A person's status defines the rights and responsibilities the person has under the *Workers Compensation Act*, including compulsory coverage for workers, and obligations of employers to pay assessments into the accident fund.

At issue are changes to WorkSafeBC's workplace status policies to ensure the policies remain up to date. Changes are necessary to align policy with the *Workers Compensation Act* and the common law, and to enable WorkSafeBC to make decisions which reflect the changing nature of work in British Columbia.

The discussion paper, with options and draft policy, as well as information on how to provide feedback, can be found here:

Proposed policy amendments on determining workplace status

Stakeholders are welcome to provide feedback on the options until **4:30pm on Wednesday, December 15, 2021**. WorkSafeBC's Board of Directors will consider stakeholder feedback before making a decision on the proposed policy amendments.

Fall Time is Training Time

With the fall almost upon us, it's a good time to assess safety training needs for workers and companies as operations start ramping up again throughout BC. Whether you have an experienced crew or new hires, BCFSC has solutions to ensure your workers have the knowledge, skills and attributes to do their job safely and productively.

We offer:

- Free self-enrollment online courses
- In-person training courses
- Occupational resources to help you train and assess your workers on-the-job

Free online courses are accessible through our learning center 24/7 at your convenience. It's easy to create an account and self-enroll in many of our courses. The following courses are currently available:

Assessor Knowledge Units

Basic Forest Worker Knowledge Units

Combustible Dust Training for Workers

Combustible Dust Training for Managers and Employers

Combustible Dust Training for Contractors

Phase Congestion

Professional Industry Driver

Resource Road Driver Knowledge Unit

Serious Incident Investigation

More self-enrollment courses are being added regularly, so check back often.

We also offer numerous in-person training options. Register early to reserve your spot!

Enrollment fees will be increasing for some courses in 2022, so lock in today's rates for our fall sessions. Visit Course List – BC Forest Safety Council to get updated training information for all available courses and to enroll.

If our scheduled sessions and locations aren't convenient for you or if you have a group of workers requiring in-person training, email **training@bcforestsafe.org** to ask us about preferred training options.

In addition to training courses, we also offer industry-developed assessments for supervisors to use on the job to ensure their workers are qualified for their operations:

All Occupations

Basic Forest Worker Assessment

Yarding

Grapple Yarder Assessment

Hooktender Assessment

Landing Utilityperson Assessment

Chokerperson Rigging Slinger Assessment

Tower Operator Assessment

Mechanized Harvesting

Feller-Buncher Assessment

Skidder Assessment

Dangle-Head Processor Assessment

Hydraulic Log Loader Assessment

Forwarder Assessment

Hoe-Chucker Assessment

Road Building

Dozer Operator Assessment

Excavator Operator Assessment

Articulated Rock Truck Operator Assessment

Grader Operator Assessment

Wheel Loader Operator Assessment

Rock-Drill Operator Assessment

More occupational assessments are being added regularly. If you are looking for a particular occupation not listed here, please reach out to us at **training@bcforestsafe.org**.

It's a great time to invest in training and assessment of your workforce. There are more options than ever to build a highly skilled workforce with our online training options, on-the-job assessment checklists and classroom-based training delivered by experienced instructors.

Course	2021 Course Dates	Location
Forest Supervisor Mod. 1	September 23	Prince George
Falling Supervisor (Limited spots/Waitlist)	September 27	Prince George
External Auditor Workshop	September 29	Online
Small Employer OHS/R	September 30	Prince George
Forest Supervisor Mod. 1	September 30	Campbell River
Small Employer OHS/R	October 7	Langley
Forest Supervisor Mod. 1	October 14	Kamloops
Incident Investigation	October 15	Prince George
Falling Supervisor	October 18	Nelson
Forest Supervisor Mod. 2	October 21	Prince George
Forest Supervisor Mod. 3	October 22	Prince George
Small Employer OHS/R	October 28	Kamloops

Course	2021 Course Dates	Location
Forest Supervisor Mod. 2	October 28	Campbell River
Forest Supervisor Mod. 3	October 29	Campbell River
Forest Supervisor Mod. 1	November 4	Nanaimo
Forest Supervisor Mod. 2	November 4	Kamloops
Forest Supervisor Mod. 3	November 5	Kamloops
Joint Health and Safety Committee	November 8	Campbell River
Falling Supervisor	November 15	Campbell River
Small Employer OHS/R	November 18	Nanaimo
Forest Supervisor Mod. 2	November 25	Nanaimo
Forest Supervisor Mod. 3	November 26	Nanaimo
Incident Investigation	November 26	Kamloops
Incident Investigation	December 3	Nanaimo

Entry Level Forest Worker Training Name Change to Forest Worker Essentials

Since 2019, BC Forest Safety Council (BCFSC) has coordinated a funded initiative from BC Ministry of Advanced Education Skills and Training to develop and deliver pilot training for workers new to BC forestry.

The program is intended as a worker-readiness training program supporting new entrants into the BC forest industry, including Indigenous Peoples, women and high-school students. Graduates arrive on the job with basic skills, a thorough knowledge of forestry and fully prepared for on-the-job learning in their chosen occupation. This program is designed to align with the occupational resources developed by BCFSC and employers can opt to continue their worker's training by utilizing the BCFSC on-the-job training and assessment materials at the worksite.

The program was successfully delivered by four Colleges and highlighted in several previous Forest Safety News articles. Based on feedback from the pilots and users of the program materials, the program name is being changed to Forest Worker Essentials and the model and curriculum are being updated to reflect a 6 to 7 week program. Approximately half of the content will be industry and sector orientation, concepts and applied knowledge through online and trainer-led sessions and the other half of the training will be through field sites/hands-on, practical sessions and industry guest speakers.

The program can be delivered through training providers such as Colleges and High Schools, or directly at the workplace. BCFSC anticipates being able to accept applications for the new program in November 2021 for 2022 delivery.

If you have any questions about the Forest Worker Essentials Training Program, please contact Allison Thompson, BCFSC Manager Training & Standards.

Canada BRITISH COLUMBIA

Funding provided through the Canada-British Columbia Labour Market Development Agreement.

Safe Tire Changing – Light Duty Vehicles

By Overland Training Canada

Overland Training Canada delivers BCFSC Resource Road Driving program courses across the province. We often get frequently asked questions and one of the most common is *"how do I change a tire safely on a resource road?"*

Do you remember being shown how to change a flat tire by a parent, driving instructor or friend when you were learning to drive or when you were a new driver? It seems many of us have never changed a tire before or may not have considered the safety implications of changing a tire, especially on a resource road. This article shares some concepts to assist you in not only making the job a little bit easier but will also provide some helpful tips so you can change your tires more safely.

What are some signs of a puncture?

There are a few signs that will indicate whether you have a puncture. One of the first could be the tire pressure monitoring system (TPMS). If your vehicle is equipped with this function, the vehicle's technology would detect a change in tire pressure before you feel anything, displaying a dashboard warning symbol alerting you to a potential problem.

Another sign could be tire noise which can be significant but it's more likely you'll feel a change to your vehicle's performance first. The vehicle will feel sluggish - acceleration, braking and steering may be affected, sometimes dramatically depending on the speed.

What causes punctures on resource roads?

A tire puncture can be caused by multiple factors but to help reduce the likelihood of a puncture, consider:

1. Tire age – tires typically have a shelf life before they start to degrade.
2. Road surface composition – the road material can be sharp or jagged (sharp rocks).
3. Driving style – more aggressive driving styles can potentially cause more damage.
4. Tire pressure – tire pressure that is too high can result in damage to the sidewalls via road material. Tire pressure that is too low can cause excessive heat build-up within the tire (heat is one the worst enemies of a tire).
5. Poor line choice through rougher terrain, rubbing tire sidewalls against sharper road material.
6. Tire type – cheaper all-season tires are more prone than good quality AT / MT tires.
7. Debris / foreign objects - such as nails, screws, metal and so on.

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Can I drive on a flat or punctured tire?

You can drive on a punctured tire. It may not be ideal, and it can potentially damage the vehicle rim, but if it means you can drive to a safe location - then we actively encourage you to do so. Finding a safe location to pull over is key to ensuring not only your safety but other road users as well when changing a tire.

What is considered a safe location to pull over?

Follow these guidelines as best you can:

1. Pick a spot that is flat.
2. Pull over off the main roadway.
3. Do not park on soft terrain such as a soft road edge.
4. Choose a long straight stretch so you are visible to traffic.
5. Do not park near a rise or depression in a road.
6. Do not park in, on or just before or after a corner.
7. Do not park in a junction.
8. Ensure you park parallel to the edge of the road so that your vehicle does not impede other traffic.

What should I do first?

If a puncture is discovered, it is important to follow these guidelines to ensure you are as safe as possible to deal with the puncture:

1. Reduce speed carefully, do not make sudden driver responses.
2. Find a safe location to pull over (see above for some ideal areas to consider).
3. If you have not already done so, engage 4-wheel drive. This will transfer the parking brake function to the front and rear axle allowing all four tires to be secured. Most parking brakes in pickup trucks actuate the rear axle so if you are changing a rear tire there will only be one tire on the ground, securing the vehicle from rolling otherwise which is not ideal.
4. Once you've pulled over in a safe location, secure the vehicle using the parking brake and set your transmission to Park.
5. Put on the hazard lights / beacons.
6. Make a radio call on your designated RR channel: (i.e.) "Pickup off at km 53 on the North Kitimat, changing a tire."
7. Remove the keys from the ignition (put them in a pocket so they are on your person) to ensure no one starts the vehicle while you are working.
8. Put on your hi-vis vest, gloves and any other required PPE and safety equipment and exit the vehicle.
9. Chock the vehicle wheel chocks or with a good-sized rock or wedge of wood. (Make sure to chock a tire that is NOT the punctured tire).
10. Place your warning triangles in front and behind your vehicle at least 100 paces apart and away from your vehicle to alert other road users that you are there well before they pass your location.

How do I change the tire?

You should refer you to your vehicle owner's manual to provide you with the manufacturer's recommended tire changing procedures. Here are some additional thoughts to help make the process easier and safer.

PRE-TRIP TIPS

1. Check that your spare tire is inflated and good to use.
2. Locate the jack and tools and ensure all tire changing tools and the jack are in good working order.

TIRE CHANGE TIPS

1. Locate the spare tire security key, its location and remove it (place in a safe spot such as door pocket).
2. Lower the spare tire (there is no point in loosening the lug nuts and jacking the vehicle up until you know you can remove the spare tire).
3. Loosen the lug nuts.
4. Secure the jack and jack up the punctured wheel.
    a. Use the manufacturer's recommended jack and jacking instructions to secure the jack in the right location (typically on the axle or front suspension arm).
    b. Ensure the jack is flat on the ground.
    c. Use floor mats or cribbing to stabilize the jack if the ground is soft.
    d. Ensure you raise the punctured tire high enough to put on the spare tire.
    e. Use your spare tire as an emergency jack stand (place under the vehicle frame until needed)
    f. Remove the jacking tool from the jack and place beside the jack so it doesn't accidently get knocked or kicked while walking around the vehicle, potentially moving the jack by accident.
5. Remove the lug nuts and place them in a safeguarded spot such as a door pocket. DO NOT place them on the ground where you could lose them.
6. Remove the punctured tire and place under the vehicle frame as an emergency jack stand.
7. Put on the spare tire and follow the manufacturer's instructions for placing the lug nuts. Ensure the spare tire is positioned correctly.
8. Place and secure the punctured tire back in the spare tire holder.
    a. A loose tire in a truck bed is extremely dangerous and can become a deadly projectile.
    b. If there is no other choice than to place the punctured tire in the truck bed, it MUST be secured by a properly rated ratchet strap. **A properly secured load is a legal requirement.**
9. Lower the vehicle and torque the lug nuts tightly, but not over tight. Refer to the manufacturer's manual.
10. Replace all the tools back in their factory storage locations.
11. Replace warning triangles back in their factory storage locations.
12. Return to vehicle and continue journey. Assess whether you replaced the tire correctly. Any noises, wobbling, vibrations could suggest the tire was not properly replaced.
13. We recommend to re-check your lug nuts using your lug wrench when you arrive back on a paved surface.

Continued on page 11...

Continued from page 10...

14. Re-torque the lug nuts with a torque wrench within the manufacturers recommended distance

What should I do after I have changed the tire?

Refer to your owner's manual for instructions on tire change protocol, however it is good practise, unless otherwise stated, to do the following:

1. Repair / replace the punctured tire.
2. Switch the spare tire with the newly replaced tire.
3. Check the spare tire is in good use and restow it back in its holder.
4. Have your workshop / maintenance team or a professional shop to re-torque the lug nuts on the changed-out tire to the manual specifications.

What are the main safety considerations to remember?

1. Find a safe spot to pull over, do so gently with no aggressive or sudden driver responses.
2. Secure the vehicle.
3. Let other road users know about your situation.
4. Wear PPE.
5. Place emergency signs on the road.
6. Use a passenger as a spotter on the roadway to caution other road users of your presence and let you know about oncoming traffic.
7. Know your vehicle. Check your owner's manual for correct procedures.
8. Face the direction of traffic as much as you can when changing the tire.
9. Know your escape routes in case unpredictable traffic puts you in more danger.
10. Vehicle suspension can present dangerous pinch points, keep your hands clear.
11. Vehicle brakes can be very hot, keep your hands clear.
12. Be focused and quick but safe and thorough.
13. Ask for help if needed.
14. Secure the punctured tire back under the vehicle and not in the truck bed unless you have a proper ratchet strap to secure it from becoming a projectile.
15. Repair / replace the punctured tire asap with a new tire.
16. Re-torque the lug nuts within the manufacturers recommended distance, typically within 50-100km maximum.

NEVER CRAWL UNDER A JACKED-UP VEHICLE / SUSPENDED LOAD

Final thoughts

These days, punctures are becoming less common as tire technology evolves. However, it can and does happen. So be prepared. Ensure you are familiar with your vehicle and that it has a good spare tire that meets tread requirements, is the same size as all the other tires and is the correct tire for the vehicle. Make sure your tire changing tools are present and in good working order and that you are practised and familiar with changing tires if operating your work vehicle.

If you cannot change the tire for whatever reason, use the radio to ask if anyone is nearby to assist or call your company or local tow operator.

The MOST important thing to remember is the safety of the driver, passenger(s) and other road users. Consider what it takes for a loaded industrial vehicle to slow down, avoid or stop. A loaded industrial vehicle can weigh 10 times more than a regular pick-up. They have limited manoeuvrability and can take up to 300 feet to fully stop which can be longer as weather and conditions deteriorate.

Learn more about BCFSC Resource Road Driver training to help keep you safe on resource roads.

New Radio Use and Road Calling Procedures Video Provides Viewers with Correct Way to Use Radios on Resource Roads

The latest resource road video released in early August showcases the correct use of radio calling procedures on resource and forest service roads. Resource roads are busier than ever with industry and recreational users driving on these roads all across BC. Incidents continue to occur causing great concern for many forestry, oil and gas, government and other users.

This 7.5-minute Radio Use and Road Calling Procedures video provides a step-by-step overview of the correct use of radio procedures and details communications protocols between vehicles on resource and forest service roads to support safe passage. This video is the second in the series of Resource Road Safety videos targeted at a broad audience of viewers from industry to the general public.

The narrative transitions between professional log truck drivers providing insight on how to drive these roads, to forestry company representatives providing coaching on safe calling procedures and the narrator giving step-by-step instructions to aid road users in understanding the protocols required to reach their destination safely.

The video was produced by the BC Forest Safety Council (BCFSC) in partnership with Mosaic Forest Management, Interfor, Gorman Bros, the BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development and professional off-road driver training company, Overland Training Canada, as a collective message to the public and industry to ensure resource road users understand and follow resource road safety rules.

Travelling on resource roads can pose various risks and though there may not be active logging in the area, other industrial users such as oil & mining exploration, silviculture and forest management may be using these roads. All resource road users should exercise caution and expect the unexpected.

View the Radio Use and Road Calling Procedures video on YouTube.

Learn More - Resource Road Safety Resources

Resource Road Orientation Video – Work Here, Play Here, Stay Safe Here

BCFSC Resource Road Safety

Government of BC – Resource Road Safety Information

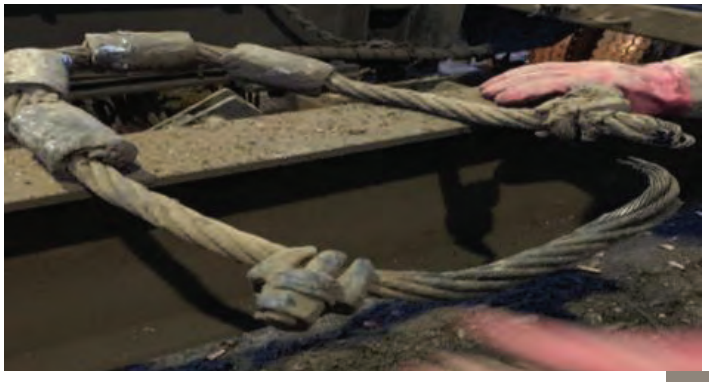
OverlandTraining Canada

Industry Focus on Molly Failure and Trailer Hoists

Several unrelated incidents have resulted in an Industry focus on mollies and trailer hoists. Thankfully, no injuries have occurred related to these incidents but there is significant risk of serious injury.

Licensees throughout the province are collaborating to determine key steps to reducing trailer hoist failures within their operations while they work with log hauling contractors and drivers to better understand the risk of molly failures.

Through the Trucking and Harvesting Advisory Group members, BCFSC recently distributed a molly survey to capture driver's perspective on the current status of molly failures and receive feedback and input on maintenance and inspections.



Okanagan College Professional Industry Driver Program

The Okanagan College Campus in Vernon is the newest location to offer the Professional Industry Driver Program. The program is funded through the Project Based Labour Marketing Training program and will incorporate ICBC's new Mandatory Entry Level Training (MELT) program.

The training program is comprised of:

- 10 weeks of MELT
- One week of employability and occupational skills
- Four weeks of mentorship with an Industry partner
- Nine weeks of work experience
- Two weeks of follow-up support to transition into employment

The program started on August 30th with eight students. Industry partners participated in an afternoon 'meet and greet' with students. The mentor program is scheduled to start on November 15th. Although there are challenges with winter conditions, the opportunity for students to have in-cab supervision and ongoing assessment of conditions by a mentor has significant advantages. Mentors are given full discretion to evaluate each student's ability to drive and may determine that a student is not ready to operate the unit based on the conditions on a given day.

Similar programs are being discussed with Northern Lights College (Chetwynd) and Thompson River University (Kamloops).

The resources used for the Industry Driver theory and mentor portion of the program are available to Contractors and Licensees from industry for use within their operations. Learn more about the **BC Forest Safety Council Professional Industry Driver Program** or contact **transport.admin@bcforestsafe.org**.

BCFSC Receives Approval from WorkSafeBC for New BC Faller Training Standard

By Marla Guldbransen, Manager, Falling Programs

The BCFSC completed the final pilot of the 30-day New Faller Training Course on June 4, 2021. At the completion of that course, WorkSafeBC granted BCFSC approval of the competency-based New Faller Training Program moving forward.

How does this impact current trainees?

Trainees who have completed 30 days of one-on-one training in the current program will be required to follow the current process; minimum 20 weekly reports, with the last five meeting the Standard, recommendation from their Supervisor and a minimum of 75% on the BC Faller Training Standard Field Examination and Evaluation assessment. There are currently 137 trainees who have completed the 30-day one-on-one program but have yet to be certified.

How does this impact future trainees in the New Faller Training Program?

Starting in 2022, those trainees trained in the new program will need to meet the outcomes of that program and be certified in that system. This will include weekly reports, a recommendation from their Supervisor, a completion of a Summative Competency Conversation and Practical Assessment.

How does this impact current certified Fallers?

There is no impact to current certified Fallers. However, if a Faller is engaged with a new faller trainee who has completed training in the new program, there will be small changes to how the trainee's work experience will be documented.

As part of the new competency-based system, periodic quality assurance visits will be conducted by BCFSC QSTs. These visits will ensure consistency of training in the 180-day period as well as provide support to the new faller trainee and the faller who is supervising them.

TLA Faller Scholarship

The Truck Loggers Association Forestry Education Fund has created The Truck Loggers Association Faller Scholarship with funds raised from the live and silent auctions held each year at the TLA's annual convention. This is a one (1) x $1,000 scholarship that is awarded annually to a student that is registered in a BC Faller Program.

TLA
THE TRUCK LOGGERS ASSOCIATION

TLA Faller Scholarship

The TRUCK LOGGERS ASSOCIATION FALLER SCHOLARSHIP – one (1) x $1,000 award annually.

Awarded to a student enrolled in a registered BC faller program.

The following documents must be submitted with your application:

1. Complete application form
2. A scanned copy of certificate of completion from training institution confirming you completed the faller training course.
3. A 300-word paragraph on why you want to work in the forest industry as a faller.

Award criteria:

1. Successfully complete faller training course in the same calendar year as your award application.
2. Plan to work as a faller in BC's forest industry.
3. Applicants with a tie to the TLA will be given priority.

Please visit the TLA website at TLA - scholarships for more information and to download the application.

Changes coming to Falling Supervisor Course

Members from the Falling Technical Advisory Committee (FTAC) and the BCFSC have been working on updating the Falling Supervisor course, looking at a blended approach. This blended approach, offering on-line and instructor-led components of the course would decrease the cost as well as the length of the in-classroom portion of the course. Work will continue for the remainder of 2021 with the hope of offering the new, updated course in 2022. Stay tuned!

New Faller Training Pilot – Forbidden Plateau

A pilot of the competency-based New Faller Training course took place May 3 – June 4, 2021 in the Forbidden Plateau region with a timber site supplied by Mosaic. The BCFSC would like to extend our thanks to Ian Emery, Contract Manager with Mosaic, and Colin Sanderson, Operations Manager with Fall River Logging Ltd. The BCFSC worked closely with the Fall River Logging road crew, who helped make the training safe and successful with thanks to their foreman, Steve Cashman and his crew.

Back row, left to right: Trainee Cody Sword, Lead Trainer John Jacobsen, Assistant Trainers Matt James and Wayne Miller.

Front row, left to right: Trainees Eric Klody, Fred Sanford, Assistant Trainer Steve Telosky and Trainee Dave Ewen.

Falling Safety Advisor Activities

Lead Falling Safety Advisor, Scott Rushton, provided the Falling Technical Advisory Committee (FTAC) with an update on Falling Safety Advisor activities this year. 2021 Falling Safety Advisor Activities (as of July 31, 2021):

- 5 Faller Certifications (2 New Faller Trainee, 3 Challenge)
- 4 Falling Supervisor Certifications
- 103 Faller Visits
- 5 Certified Falling Supervisor Quality Assurance Visits
- 20 Certified Falling Supervisor Visits
- 11 Trainer Quality Assurance Visits

Wood Products Manufacturing Online Training Resources Coming In Fall 2021

By Cherie Whelan, Director SAFE Companies

BCFSC has been working with the Manufacturing Advisory Group to develop training geared specifically to the wood products manufacturing sector.

Wood Products Manufacturing Hazard Identification and Risk Assessment Training

This will be a 1 hour online interactive module available through BCFSC's online learning centre. The course has been designed to help workers new to manufacturing wood products manufacturing:

- Understand what hazards and risks are
- Become aware of common hazards in wood products manufacturing worksites
- Learn how to assess and control risks

Wood Products Supervisor Training. This training is geared towards new supervisors and is leveraging the material from the BCFSC Forest Supervisor Training. The BCFSC Training Department is working with a MAG project team to update the BCFSC Forest Supervisor training with wood products specific content and make it available in six 1-1.5 hour online interactive modules with the following topics

- **Module 1** - Cornerstones of Effective Safety Supervision, Roles and Responsibilities of Safety Supervisor, Business and Regulatory Requirements
- **Module 2** - Due Diligence, Documentation
- **Module 3** - Training and Orientation / Communication
- **Module 4** - Hazard ID / Inspections / Investigations
- **Module 5** - Effective Communication
- **Module 6** - Leadership Styles – Tips and Tricks

Both the Hazard ID/Risk Assessment and Supervisor Training courses will be available in Fall 2021, so stay tuned!

Industry Embracing Critical Control Management: Workshops Completed at 10 Sites

By Gordon Murray, Executive Director, WPAC

In 2020, the Wood Pellet Association of Canada and the BC Forest Safety Council teamed up to introduce and implement the Critical Control Management (CCM) process across BC's wood pellet and MDF plants. The uptake and learnings are providing key insight into how the industry can benefit from Bow Tie Analysis which forms the foundation of CCM. To date, workshops, led by researchers at Dalhousie University and BCFSC staff, have been completed at 10 of the 15 sites.

The pellet industry has a record of embracing new systems, processes and technologies to make plants safer and the CCM workshops are no exception. Plant employees participate in bow tie analysis workshops, led by Kayleigh Rayner Brown, P.Eng., M.A.Sc. Participants receive education, training and mentoring in the necessary knowledge and skills required to identify site-specific critical controls. BCFSC Safety Advisors Bill Laturnus and Tyler Bartels summarize the information developed at the workshops into a workable template for the plant to use when it submits its plan to WorkSafeBC.

"There's a natural journey happening at these workshops," says Laturnus. "By working together, plant staff are open and honest about the potential hazards and collectively they develop processes that improve safety. As the days go by, they begin to get excited at the prospect of applying this approach at a larger scale not just combustible dust but chemicals for example or preventing back injuries, you name it, bow ties and CCM have very broad applications".

Successful workshops mean getting the right people at the table every day of the workshop – no small feat in a plant and managing holiday schedules on top of it.

"The level of commitment and work that went into getting the right people to the workshop while ensuring back up at the plant was excellent and it paid off," says Rayner Brown. "As a result, we had strong energy and an eagerness to, analyze, discuss and learn, which resulted in people identifying tangible and practical changes that could be easily implemented."

West Fraser's WestPine MDF plant in Quesnel is the most recent operation to participate, alongside Canfor and Premium Pellets which have also completed their workshops. Greg Rye, WestPine's Safety Resource Co-ordinator, says the workshop helped the team discover opportunities for further protective barriers and illustrated and validated the controls they need to have in place.

"What stood out for me was how comprehensive the process, especially working with an expert like Kayleigh," says Rye. "Next steps for us will be to identify those controls deemed to be 'critical' and to begin to document our critical controls management plan."

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Manufacturing Safety

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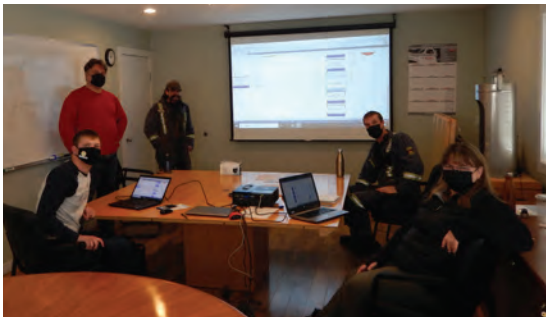
Rye also has advice for the plants participating in upcoming workshops.

"Bring a diverse group of people together and really engage in the process. Also take time to look at the bow tie webinars which were a great primer on the process and we recommend everyone complete them in advance."

WorkSafeBC is funding the Dalhousie University Department of Process Engineering and Applied Science Innovation at Work research project that will build on the WPAC funded CCM project workshops and transfer this knowledge to employees and employers throughout the wood pellet industry across Canada and internationally.

You can read more about CCM on WPAC's website.



Pellet plants across BC are embracing critical control management, with 10 of the 15 sites already completed in this important initiative.

Tips for a Successful Bow Tie Workshop:

- **Complete Webinar #1 and #2** in the WPAC Safety Foundation Webinar series for a primer about bow tie analysis and critical controls management.
- **Collect useful documents** before the workshop so that the team can use them to refer to, like piping and instrumentation diagrams (P&IDs) and corporate risk management programs.
- **Develop a Terms of Reference** ahead of the workshop, get buy-in from all participants so commitments and objectives are clear.
- **Identify key personnel** in your organization that should participate in the workshop and begin planning and scheduling early! Your team should consist of Subject Matter Experts (SMEs) knowledgeable in the operations and maintenance of the facility and its controls ideally, including:
  - » Operations (Manager, Supervisor, Operators),
  - » Maintenance staff,
  - » Electrical staff,
  - » Safety (EHS, OHS & Process Engineering), and
  - » Process Control & Instrumentation.
- **Engage a facilitator** with experience and knowledge in bow tie analysis should lead the workshop.
- **Schedule 5-minute breaks every hour** (hard-stops) during the workshops.
- **Invest in solid/good quality audio-visual equipment.**
- **Be adaptable and nimble** to make the most of the discussions, learnings

Fibre Pile Management

By Michele Fry, Director, Communications

Wood fibre manufacturing dedicated to biomass fuel production such as wood pellet manufacturing uses industrial waste products such as hog fuel or wood chips from lumber mills, pulp and paper mills, wood products manufacturing and more to create their fuel products. Traditionally these waste products are stored in large fibre piles at manufacturing work sites. If not managed correctly, the accumulation of wood fibre in piles can pose a significant fire risk. These piles contain materials that consolidate and pack together. The range of moisture content combined with various particle size and densities within the material leads to microbial growth and biological activity. The combination of these factors can cause the fibre piles to self-heat over time due to the microbial decay of the wood fibre triggering combustion within the pile(s).

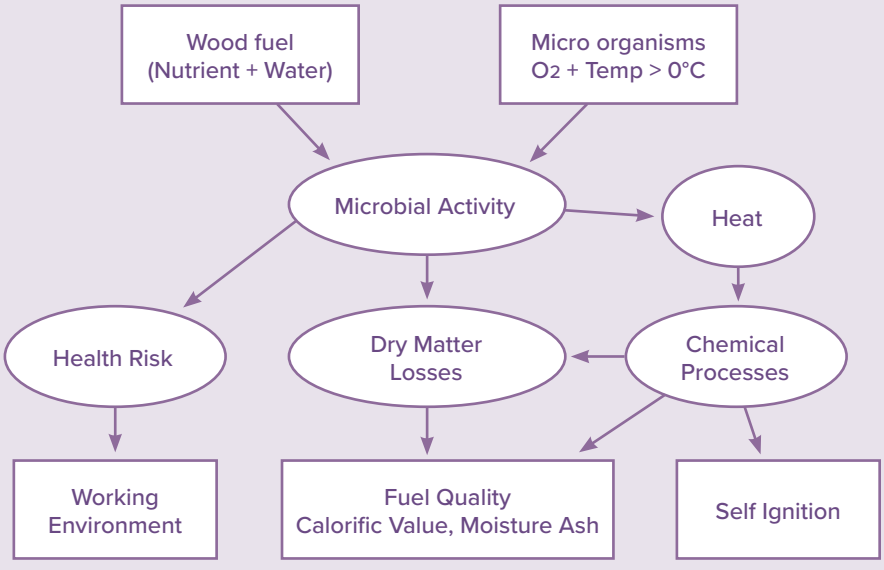


Figure 1. Source *Best Practices in Fibre Pile Management

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Manufacturing Safety

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The hazardous result of this biological, physical and chemical reaction generates smouldering pockets that can endure continuously for months creating gaps and fire pockets that can collapse under any weight. These smoulders can even lead to surface fires and open flames when exposed to oxygen such as wind, exposure from another fire or from other ignition sources close to the piles.

Effective management of wood piles and good safety planning can help decrease the risk of internal fires caused when fibre piles self-heat causing combustion. The risk of spontaneous ignition increases if the raw material or solid biofuel is initially moist, the stored volume is large and the ambient temperature is high. Follow these **Best Practices in Fibre Pile Management** and control methods developed by *Dr. Shahab Sokhansanj and *Dr. Fahimeh Yazdanpanah to help mitigate the risks of spontaneous fibre pile fires to help keep workers safe and your fibre protected.

STORAGE:

- Fibre pile storage should preferably be located on dry, level ground on an asphalt or concrete surface close to the transport road.
- The dry, level ground should be free of stumps, stones and large residues.
- The storage area should be located in an area higher than the transport road(s) to avoid rainwater saturating the storage pile from the water accumulating on the road(s).
- Outside storage piles should preferably be covered to avoid precipitation or the accumulation of moisture.
- Store dry fibre piles (<20% moisture content) to avoid microbial growth
- Different types and qualities of fibres such as hog fuel and wood chips should never be mixed and should be stored separately.
- Fibre piles should preferably be stored in small piles.
- Store fibre piles for a short period of time.
- Ensure fibre pile storage management controls are in place with inventory and timeline management as essential control measurement.
- Store the material such for FIFO (First In-First Out)
- Avoid compacting the material – (i.e.) running heavy equipment on the material.
- Use these rules of thumb:
  - » FIFO (First In-First Out) – store the material to ensure the material is transported first in – first out to reduce the risk of some material sitting in the pile for an extended period of time.
  - » Raise piles in elongated stacks using a rule of thumb = base width twice the height of the stack.
  - » Fibre pile typical heights: clean wood chips without bark 15m | chipped forest residue 15m | bark 7m | sawdust 6m.

CONTROL MEASURES:

- Use a Forward Looking Infrared (FLIR) camera or thermal imaging camera to identify hot spots early.
- Monitor the temperature at several different locations in the bulk.
- Measuring the CO concentration in the air above the fuel surface is one possible method for detection of activity in the fuel bed.
- Other detection methods include multi-gas detectors and sensitive “electronic nose” detectors.
- Understand the signs of an on-going self-heating process to detect the hazard. The first sign is often a sticky and irritating smell.
- Initiate firefighting if the smell or sight of fire is sensed from the storage pile such as the smell or sight of smoke (not steam or water vapour) or if flames or embers are spotted. Use trained fire fighters or contact the local fire department to safely expose and extinguish fibre pile smolders/fires.
- Ensure workers do not climb up on and equipment does not scale or drive on a fibre pile that is suspected of self-heating.
- Restrict public access to fibre storage areas.
- Follow all established safe work procedures regarding fibre pile storage.
- If you suspect the pile is self-heating
  - » Don’t go on top, instead seek help and advice from your supervisor.
  - » Check to see if your safe work procedures follow a process. If there is no procedure in place, ask your supervisor for help.

To learn more about Fibre Pile Management, visit Wood Pellet Association of Canada

Resources: Best Practices Fibre Pile Management

BCFSC Fibre Pile Management Crew Talk

WPAC Safety Alert: Fibre Pile Fatality

**Dr. Shahab Sokhansanj (PhD, MSc) is an Adjunct Professor of Chemical and Biological Engineering at the University of British Columbia Faculty of Applied Sciences*

**Dr. Fahimeh Yazdanpanah (PhD, PMP, P.Eng) is the Research and Technical Development Director for the Wood Pellet Association of Canada, founder of Spark Biomass Consulting Inc. and former Research Associate in Biomass and Bioenergy Research Group (BBRG) at the University of British Columbia.*

What's new in 2021 for Heart Health

By Dr. Delia Roberts

Cardiovascular disease, the second leading cause of death in Canadians, is on the rise and accounts for nearly a quarter of all deaths in British Columbia[1]. Things like heart attacks, strokes, and problems with heart rhythms or the ability of the heart to effectively pump blood, plus high blood pressure and the health of the blood vessels all fall under the category of cardiovascular disease. And with the COVID-19 pandemic the incidence of these illnesses are predicted to increase further, due to the increased mental and emotional stress and the reduction in physical activity due to the lockdown[2]. Thus, faced with an aging, stressed and more sedentary population this article will take a look at what's new for what works – or doesn't work - for the prevention and treatment of cardiovascular disease.

Blood Pressure

Hypertension Canada completes a comprehensive review of their guidelines for the prevention, diagnosis, risk assessment and treatment of hypertension in adults and children every two years. The latest version was released in 2020 and continues to emphasize accurate measurements of blood pressure before choosing a course of treatment. Blood pressure is best measured using an electronic device in a quiet room, while seated in an upright posture, back supported and feet flat on the floor. There are also specific requirements for placement of the cuff that are important to make sure that the readings are correct. Because some people's blood pressure is higher when the measurement is taken in the presence of a doctor or health professional (known as white coat hypertension), an easy-to-wear automatic cuff may also be used to take and record a measurement every 20-30 minutes over 24 hours (known as ambulatory blood pressure). Diagnosis of hypertension now also takes into consideration whether the measurements were based on office, ambulatory or home measurements, as well as the presence of diabetes and other risk factors. Also emphasized is the recommendation that low dose aspirin (ASA) not be taken as a preventative treatment for stroke or heart attack unless you have already had one of these events. The very modest advantages are not worth the increased risk of bleeding.

Diabetes

Any discussion about cardiovascular disease needs to include diabetes because diabetes has a very strong impact on the health of the heart and blood vessels. People with diabetes are three times as likely to die of heart disease, and at an earlier age than people without diabetes. But what's new about the relationship between diabetes and cardiovascular disease is that some new blood glucose lowering drugs called sodium-glucose cotransporter inhibitors (SGLT2i), have been found to have protective effects for the heart and blood vessels (and the kidneys). Studies have shown that these drugs are effective at lowering the risk of hospitalization for heart failure for people with existing cardiovascular disease. Also exciting is the finding that these drugs are able to lower the risk of developing cardiovascular disease for people with diabetes and other risk factors who haven't yet developed cardiovascular disease, which is great news!

Blood Lipids

Long included as part of a heart health check-up, the routine measurement of blood lipids is now done non-fasting and is only recommended every 5 years for people over the age of 40 years unless other risk factors (things like diabetes, cardiovascular disease, obesity, COPD, kidney and inflammatory disease) are present. In the 2021 Canadian Cardiovascular Society Guidelines the approach is focused on making collaborative treatment decisions where both the physician and patient work together to make a plan for lowering cholesterol levels, including the use of lifestyle changes and statin and non-statin drugs. To do so, the recommendations include focusing on the use of non-high density

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lipoprotein cholesterol (non-HDL-C) or Apolipoprotein B (ApoB) levels rather than low density lipoprotein (LDL) levels, as was previously used as the key decision-making blood test. Both ApoB and non-HDL-C are thought to be more accurate markers of total blood lipid levels and lipid related cardiovascular risk. In addition, the new recommendation is to include a once-in-a-lifetime measure of another lipoprotein (LPa) which is genetically determined and which provides information on the inherited predisposition for cardiovascular disease. The 2021 review also included an analysis of whether the use of over-the-counter omega-3 polyunsaturated fatty acid (PUFA) supplements such as fish oil, could reduce cardiovascular disease risk. Using very large and long-term databases the conclusion was that no benefit could be shown from taking these dietary supplements.

Heart Attack

Heart attacks can be caused by a number of different mechanisms, but new evidence shows that one of the most common types occurs most frequently in the winter months. These heart attacks are caused by atherosclerosis (a disease that develops when inflammation and high cholesterol in the blood lead to the deposit of this fat on the inside of blood vessels). A heart attack can occur if the fatty plaque deposits inside of the blood vessels supplying the heart break off and block blood flow, starving heart muscle of oxygen. In people where this occurred, blood pressure was also higher in the winter. One reason why winter increases the rate of these heart attacks might be because of the way blood flow to the hands and feet is reduced to conserve heat when out in the cold, which would raise blood pressure because all that blood is now in a smaller circulatory area. Another theory is that people eat more fatty and salty foods in cold weather, or even exercise less when it's cold and wet outside, all of which lead to higher blood pressures. Another possibility is that people often get more infections in the winter including the flu, which raises the level of inflammation in the body. It's known that plaque rupture is also associated with inflammation.

In contrast, heart attacks caused by plaque erosion were higher in the summer. In this type of heart attack, there is little or no fatty deposit and high cholesterol levels are not a contributing factor. Instead the muscle on the inner wall of the blood vessel interacts with the clotting system form a blood clot, which then reduces blood flow in the vessel. The theory here is that dehydration stresses the insides of the blood vessels more, which would then cause more plaque erosion. Scientists don't know for sure which of these mechanisms cause the seasonal increases in heart attacks, but making sure to keep your hands and feet warm and limit your intake of salty, fatty foods in the winter as well as staying well hydrated won't hurt!

What's still true

Choosing healthy behaviours is still the first and strongest choice in cardiovascular disease prevention and a healthy lifestyle remains key in reducing the progression and severity of these life-threatening conditions. It's thought that 74% of strokes could be prevented by lifestyle interventions. Data from study after study shows that in addition to the traditional risk factors for cardiovascular disease (abnormal lipid levels, hypertension, smoking, and diabetes), things like abdominal obesity, dietary habits, alcohol consumption, and physical inactivity, are strong risk factors for heart attacks and strokes that can be changed in all ages, ethnicities and genders. What is newer is our understanding that mental and emotional health are also extremely important. Lowering stress through relaxation practices, getting enough sleep, learning good communication and coping strategies and building a network of supportive relationships as well as spending time out of doors in green spaces have all been shown to be beneficial in preventing and reducing the severity and progression of chronic diseases like cardiovascular disease.

The question of what exactly is a healthy diet has also been re-examined and in spite of the controversy around ketosis diets and saturated fats, the data continues to support a Mediterranean style diet low in salt and sugar with plenty of vegetables and fruits. These kinds of diets are made up of mostly unprocessed foods, with limited animal protein and lower fat dairy products. Instead, they include plant-based proteins like legumes, whole grains, olive oil and nuts and lots of fibre.

These are choices that each of us can begin to make today that will have real impact on our risk of developing cardiovascular disease, and will lower our risk of dying of a heart attack, heart failure or stroke should we already have high blood pressure or problems with our heart. If you are interested in getting support to make some of these changes there is a new virtual program available free of charge in British Columbia through your family practice physician or self referral. HealtheSteps is a wellness program that provides customized coaching for lifestyle interventions to reduce the risk of chronic diseases. Trained coaches provide one-on-one support to help make long-term changes that will directly improve health. For more information or to sign up visit their website.

Sources:

1 **BCCDC COVID Report:** One Year of the Pandemic in BC

2 **StatsCan Study**: The effect of COVID-19 on physical activity among Canadians and the future risk of cardiovascular disease

DRB Contracting Ltd. Takes Safety to Heart

Heart disease is the second leading cause of death in Canada behind cancer and strokes are the third leading cause of death. Both heart disease and strokes are related to cardiovascular health. Currently, around 2.4 million adult Canadians aged 20 and over live with diagnosed heart disease.

Heart attacks and strokes are life-and-death emergencies where every second counts. They can strike at anytime, in a moment when you least expect it. Being prepared to jump into action is one of the most important factors to saving a victim's life.

DRB Contracting Ltd, a family-owned and operated business run by Darryl Braaten and Anita Renwall in Clearwater, BC, have been a SAFE Certified company for over 12 years. They take the safety of their worker's very seriously and have taken extra steps in improving workplace safety measures. An innovative idea from Anita, the company's office administrator and safety officer, was to enhance their first-aid and safety kits by including a separate grab kit which is placed in all vehicle glove compartments, both the company and their personal vehicles, as well as in all lunch bags & logging equipment.

Each kit contains a laminated, double-sided SIGNS OF A STROKE and SIGNS OF A HEART ATTACK bookmark, a face mask, low-dose aspirin* for heart attack symptoms and a compression bandage. The kit is stored in a re-sealable Ziplock bag and has an extended shelf-life since the contents are not affected by heat or cold. The kits are meant to provide some additional equipment to provide better first aid treatment until the person gets professional medical aid.

*Aspirin can be an effective measure along with the other recommended first aid treatments for heart attacks. Always make sure the person is not allergic and hasn't been advised by their doctor not to take aspirin. Aspirin is not part of the first aid treatment for strokes.

This idea is cost-effective and easy to implement but can make all the difference to someone's life. Our thanks to DRB Contracting for sharing this safety tip and our hats off to them for making safety a priority.

Disclaimer: The Occupational Health and Safety Regulation contains the minimum requirements for first aid equipment. Proactive companies like DRB assess their workplace risks are and supplement their equipment. Always check with a medical professional or qualified first aid training provider to ensure additional contents included in first-aid kits meet the recommended measures or treatments as suggested.

Kid's Corner

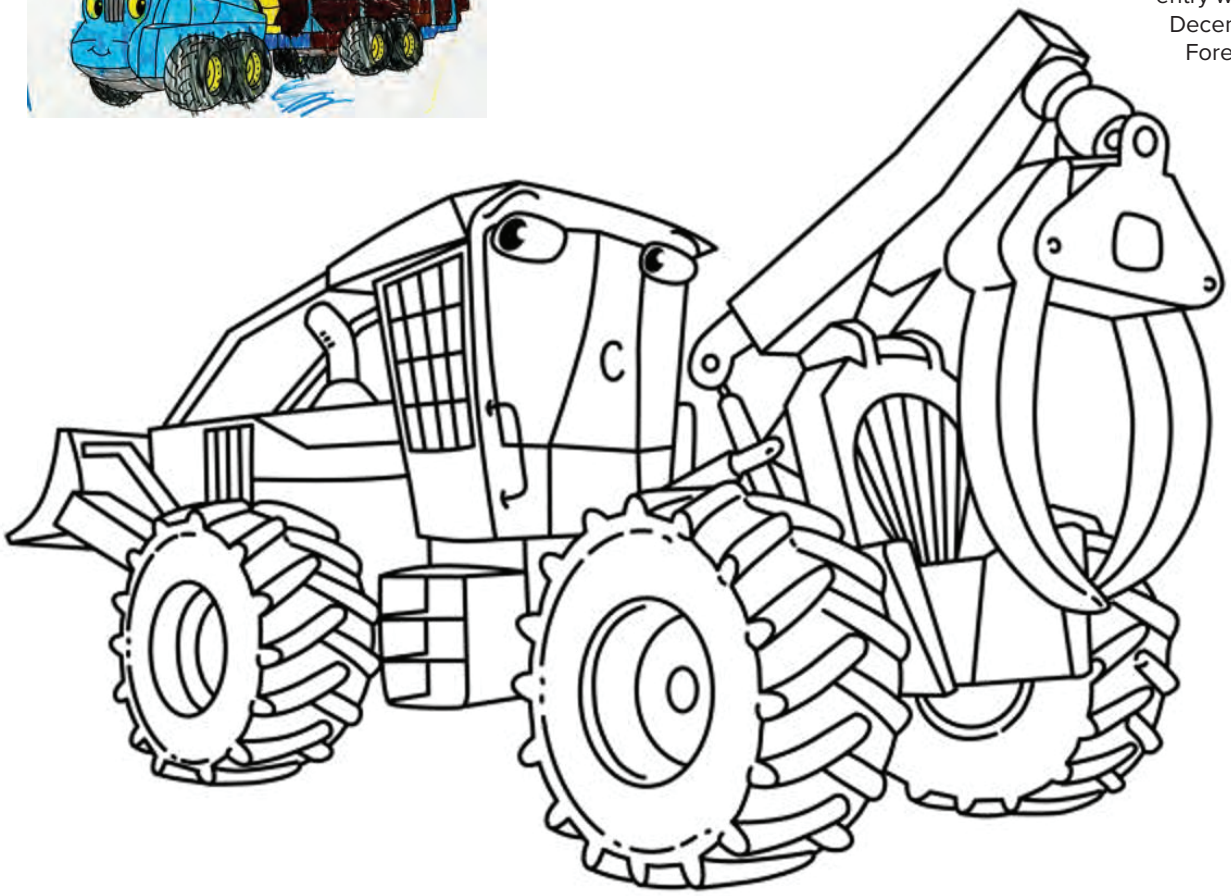
Colouring Contest

Thanks to everyone who entered our June colouring contest. **Congratulations to Emilie-May, age 6**, whose name was picked from our random draw. Emilie-May wins the DRIVEN Toy Logging Truck and we will be sending a special gift to everyone else just for entering!

For our fall issue, send us a picture of your artwork and enter to win our super cool DRIVEN Toy Logging Truck – it even has a crane arm and logs! Have your mom or dad, grandma or grandpa or guardian email us a photo of your artwork with your first name and age and we'll put your name into the draw.

How to Enter:

- Colour the Skidder or make your very own drawing.
- Have an adult take a picture of your artwork and email it with your name, age and your mom/dad's email address to **editor@bcforestsafe.org**
- Submit your entry by 4pm, Friday, November 5, 2021.
- Kids aged 3 – 12 are eligible.
- All entries will be put into a random draw to win the toy logging truck. The winner will be contacted via their parent's email address and the winning entry will be featured in the December 2021 issue of the Forest Safety News.



ABOUT Forest Safety News

Forest Safety News is published 4 times per year, in March, June, September and December.

The opinions expressed in the newsletter are not necessarily those of the editor, staff or board of the BC Forest Safety Council. All decisions to publish materials rest with the editor. 7,500 copies of each edition are distributed via email.

Subscriptions

For a digital subscription to **Forest Safety News**, please visit our website and register your email address or you can email **editor@bcforestsafe.org.**

Have a story, letter to the editor, safety tip, ideas or photos? Please send submissions to:

Forest Safety News Editor
420 Albert Street, Nanaimo, BC V9R 2V7

Call 1-877-741-1060 or email editor@bcforestsafe.org

BC **Forest Safety**

Safety is **good** business

www.bcforestsafe.org

FOREST SAFETY NEWS

DECEMBER 2021 • Issue 4 / vol. 8

It is with much sorrow that we report the passing of Pam Agnew, BCFSC's former Communications Director and Editor of the Forest Safety News. Pam made the personal choice to pass away peacefully on Friday, October 29th due to complications with cancer. Pam worked with the BC Forest Safety Council from 2013 to 2019 and her passion and dedication to safety made a significant impact to our industry.

This issue of the Forest Safety News is dedicated to Pam. Her legacy is this publication; it was her brainchild. Pam knew the importance of sharing safety news and information and she developed the Forest Safety Newsletter (FSN) as a way of gathering stories and safety news from around BC and providing one place where it could be accessed by all with information focussed on all areas of BC forestry including falling, transportation, SAFE companies, health and wellness and wood products manufacturing. Her vision of a newsletter dedicated to forestry safety has now become one of BC's leading safety publications with over 7,000 subscribers and readers from all over BC, Canada and the world.

Pam was also integral to the annual Vancouver Island Safety Conference and the Interior Safety Conference. Reporting on each session with great detail and conveying conference highlights with meticulous summaries, she thoroughly captured the sentiment of each presentation. These summaries allowed all those who were unable to attend the conferences in person to still learn from the valuable information from the presenters and feel part of the action from the candid photos she captured of the networking participants and engaging presenters.

Pam was a great photographer and her photos are still used in the development of BCFSC online training courses and other resource materials. The field photos she took on a site visit with WorkSafeBC and a local logging and road building contractor depicted the reality of a forestry worksite and captured the authenticity of the work. To this day, those photos help us convey and demonstrate what a forestry worksite is really like and are used in almost every online course developed by BCFSC and also in many other communication materials we produce.

Always the consummate professional, Pam invested a high degree of skill and passion into her work. Her impact on this organization and anyone she touched reaches far and wide. She will forever be fondly remembered and will be sorely missed by all.

On behalf of BCFSC, I would like to extend our heart felt condolences to Pam's family and friends. Pam set an example that will continue to be an inspiration for all of us and her legacy will continue in our efforts to achieve of our vision to see every forestry worker goes home safe – everyday.

Rob Moonen, CEO

Welcome to the Winter edition of Forest Safety News, covering news about safety topics in forestry. This is YOUR safety newsletter. We look forward to your input and feedback! Email the editor at **editor@bcforestsafe.org** or call **1-877-741-1060**.

What's Inside:

Photo Credit: Pam Agnew

What's New

Here is the latest on what we have to offer since September 2021. Find direct links to safety alerts, industry-specific resources, industry information and more to download and/or share with employees, industry and safety peers. And make sure to follow us on social media to stay up-to-date with the latest news. Follow us on Facebook, Instagram, LinkedIn and Twitter.

Wood Products Manufacturing Hazard Identification and Risk Assessment Training – BCFSC has launched a free interactive online training program to help workers in wood products manufacturing facilities identify, assess and control common hazards. This training was developed in partnership with the Manufacturing Advisory Group (MAG).

Understanding Hazards and Risks Video – Ever wonder what the difference is between a risk and a hazard? Check out the new BCFSC video that explains it in more detail.

BCFSC Seeks Industry Input on Load Securement and Molly Failures – We're inviting log haulers and industry to share their feedback by taking our two surveys on Load Securement and Molly Failures.

New BCFSC Healthy Worker Topic – If you or your co-worker are struggling with alcohol use, check out our newest healthy worker resource and learn more about assessing your alcohol intake and where to turn for help if you need it.

Training Calendar – Our 2021 Training Calendar offers both in-classroom (with COVID-19 safety protocols in place) and online courses.

Safety Alerts – Alerts provide timely information on incidents and issues which cause, or result in, serious or fatal injuries. The alerts we send by email and post on our website are intended to raise awareness and educate industry so we can learn from each other's experience and effort. Here are the latest alerts from BCFSC and industry.

- **BCFSC Safety Alert of the Month** – School bus and log truck incident
- **Manufacturing Weekly Safety Alert** – click on the link to see the latest weekly alert

To subscribe to our safety alert emails – Click Here

Industry Links

WorkSafeBC Announcements – check here for the latest information on WorkSafeBC policy and regulation updates, resource development, risk advisories and more.

WorkSafeBC Enews – subscribe to Insight; WorkSafeBC's policy, regulation and research division e-Newsletter, Health and Safety Enews, Young Worker Enews and more.

A Report from the 2nd Annual BC First Nations Forestry Conference and 1st Annual WorkSafeBC Prevention Services Conference

Last June, the BCFSC sponsored the 2nd annual BC First Nations Forestry Conference. The theme of conference was "First Nations as Full Partners" and was broadcast virtually from the unceded territory of Snuneymuxw First Nation. A total of 420 participants attended the three-day event, with representation from over 100 First Nations, and 76 non-Indigenous organizations (industry, post-secondary institutions and provincial government).

The conference was planned as an opportunity to bring together industry, government and First Nations to discuss changes to forest policy and legislation and workforce partnerships that can support First Nations as full partners in the forest sector.

Over the three days, speakers from First Nations communities and businesses, government, industry and post-secondary institutions shared experiences. They provided insight into changes needed to increase First Nations involvement in the workforce and their role in the governance and stewardship of forest lands and resources, that includes access to viable tenure opportunities. The intent of these presentations was to enhance

Continued on page 3...

BC **Forest Safety**

Extending you our very best for a **safe** and happy holiday season.

BCFSC Holiday Office Hours

Friday, Dec 24	8am – 5pm
Monday, Dec 27	CLOSED
Tuesday, Dec 28	CLOSED
Wednesday, Dec 29	8am – 5pm
Friday, Dec 31	8am – 5pm
Monday, Jan 3	CLOSED
Tuesday, Jan 4	Regular hours resume

Continued from page 2...

knowledge and insight into meaningful participation of First Nations in the forest sector to help advance reconciliation and facilitate a climate of investment based on sustainable resource development.

Review the **2021 BC First Nations Conference Report** for yourself and save the date for next years conference "What's Changed? A Report Card" scheduled for June 15-16, 2022.

The BC First Nations Forestry Council also held their 3rd annual Indigenous Forestry Career Fair, September 23 - 24, 2021. This virtual two-day event called FORESTRY CONNECT 2021, offered Indigenous students and youth participants a unique space to focus on skills, training, education and employment in the BC Forestry Sector, while exploring opportunities to join the workforce. This year's event was divided up to highlight four BC regions - Coastal, Central, Eastern and Northern to help address the variety of forestry work, operations and opportunities that occur across the province.

On October 13 & 14, 2021, WorkSafeBC Prevention Services hosted its first annual virtual conference. It was attended by WorkSafeBC Prevention Services employees who deliver services for the prevention mandate to engage employers and workers to reduce risk and keep workplaces healthy and safe through education, consultation and enforcement. This two-day event featured a lineup of speakers aligned with the conference theme - Connect. Adapt. Innovate. All experts in their fields, the speakers addressed topics on change management, safety culture, behavioral insights, resiliency, resistance, adapting through innovation and more.

Eight BC Health and Safety Associations (HSAs) were also invited to virtually exhibit during the WorkSafeBC Prevention Services Conference with mini sites that featured videos, web links, pdf documents and contact information for attendees to learn more about these organizations and were provided the ability to connect through live chat options, email or appointment scheduling with HSA conference contacts.

Save the Date – Scheduled BC Forestry Conferences & Events for 2022

The global pandemic changed the way we attend large group conferences and events in 2020 and 2021. Some forest sector events and conferences were held virtually while some were cancelled altogether. For now, 2022 will be another year of unpredictable in-person attendance for conferences. Although many industry events have not been scheduled due to the unpredictability of health restrictions, we do have a list of some confirmed conference dates for 2022.

*Please note: Scheduled in-person 2022 conferences could be modified based on BC Health Authority restrictions at the time of the conference.

Conference	Scheduled Dates	Location	Registration
78th Annual Truck Loggers Association	Jan 12 - 14, 2022	Vancouver, BC	**www.tla.ca/convention**
19th Annual BC Natural Resource Forum	Jan 18 - 20, 2022	Prince George, BC	**www.bcnaturalresourcesforum.com**
2022 Western Forestry Contractors' Association Conference, Trade Show and AGM	Feb 9 - 11, 2022	Virtual	**www.wfca.ca**
Association of BC Forest Professionals	Feb 9 - 11, 2022	Nanaimo, BC	**www.abcfp.ca**
Council of Forest Industries Convention	April 27 - 29, 2022	Vancouver, BC	**www.cofi.org**
3rd Annual BC First Nations Forestry Conference	June 15 - 16, 2022	TBD	**www.forestrycouncil.ca**

Workplace Bullying and Harassment has Gone Virtual

Remote working can be a great option for some of us by offering greater flexibility in our workdays but it's not without its challenges. It may seem logical to assume that instances of workplace hostility and harassment are down because we're working from home but that's simply not the case. The explosion of people working from home has led to an uptick in virtual harassment and cyber-bullying on virtual meeting platforms and more.

Microaggressions between workers can be common in an office but can be handled more efficiently when a supervisor is more accessible in an office environment. With remote workers connecting through digital technology, workplace harassment can be more difficult for supervisors to manage the private chats, video calls or virtual meetings. Pandemic fatigue and isolation can cause people's tension and stress to rise - compelling us to forget office etiquette. These factors can also allow more of us to dismiss or ignore inappropriate comments or even misconduct when they occur in a virtual setting, especially in group settings where it can be tricky to react discretely. Incidents may not even be reported as employees may be unsure about what counts as harassment in a virtual environment and how they can take it up with their supervisor or HR department.

Virtual harassment should not take a back seat when it comes to providing safe working conditions. Employers can make a shift in the right direction by understanding how and why employees are experiencing this type of harassment to better support staff and inspire a collaborative online work environment.

So how can we tackle this new reality?

1. Take some proactive prevention steps. Offer anti-harassment awareness training to educate everyone in your organization including senior management, supervisors and employees about the different types of virtual workplace harassment and help them understand their part in keeping it at bay while working from home.
2. Review your anti-harassment policy to establish a safe online workplace. Ask yourself these questions:
   - Does the policy apply equally to staff working from the office and at home?
   - Does it contain guidelines for internal and external communications including spoken and written words in emails, text messages, group chat messages, video meetings, etc.?
   - What is the procedure for employees to confidentially report experiences, concerns and issues?
   - Tolerance for virtual harassment as well as all other types of harassment?

Harassment will not fade away on its own no matter where people are working. As workplaces become more dynamic, organizations can address the growing issue of virtual harassment and misconduct and help curb these issues by laying some ground rules and holding people accountable. A safe work environment is more than just preventing injuries or the spread of disease. It is about making employee well-being a priority where employees feel secure and experience a positive co-working environment that encourages respect for everyone no matter where they do their jobs.

December 2021 Public Hearing on Proposed Changes to the Occupational Health and Safety Regulation

WorkSafeBC will be holding a public hearing for **proposed amendments** to the Occupational Health and Safety Regulation. Due to the COVID-19 pandemic, the hearing will be held virtually and will be livestreamed in two sessions on Wednesday, December 8, 2021, from **11am to 1pm** and from **3pm to 5pm**.

The virtual hearings will cover proposed changes to the following parts of the OHS Regulation:

- Part 3, Rights and Responsibilities — Reassignment of refused work
- Parts 1, 16, and 28, Housekeeping Amendments

Go to the WorkSafeBC **proposed amendments** link to view the details on how to access public hearings live on December 8th.

Participating in the public hearing process

WorkSafeBC welcomes feedback on the proposed amendments. All feedback received will be presented to WorkSafeBC's Board of Directors for their consideration. Feedback can be provided in the following ways:

1. **Submit feedback online or by email**
   Written submissions can be made online until 4:30pm on Friday, December 10, 2021, via **worksafebc.com** or by email to **ohsregfeedback@worksafebc.com**.

2. **Register to speak at the hearing by phone**
   To register, call (604) 232-7744 or toll-free in BC at 1-866-614-7744. One presentation from an organization or individual will be permitted.

Proposed Policy Amendments on Determining Workplace Status

WorkSafeBC's Policy, Regulation and Research Division is releasing a discussion paper on determining workplace status with options and draft policy to stakeholders for comment.

"Workplace status" refers to whether someone is an employer, worker or independent operator. A person's status defines the rights and responsibilities the person has under the Workers Compensation Act, including compulsory coverage for workers, and obligations of employers to pay assessments into the accident fund.

At issue are changes to WorkSafeBC's workplace status policies to ensure the policies remain up to date. Changes are necessary to align policy with the Workers Compensation Act and the common law, and to enable WorkSafeBC to make decisions which reflect the changing nature of work in BC.

The **discussion paper** with options on proposed policy on **determining workplace status** is now available to stakeholders for comment. You're invited to provide feedback on the options until the consultation period ends at 4:30pm on Monday, January 10, 2022.

Visit the **WorkSafeBC webpage** to find out more about how to provide feedback and to read the draft policy amendments.

New OHS Amendments Come into Effect December 1, 2021

WorkSafeBC recently announced new and revised amendments to several areas of the Occupational Health and Safety (OHS) Regulation. These amendments will come into effect on December 1, 2021 and will apply to the following areas:

- **Combustible and flammable liquids (Parts 1, 5, 22, and 23)**
- **Ionizing radiation — dose limits for the lens of the eye (Part 7)**
- **Traffic control (Part 18)**
- **Blasting operations (Part 21)**
- **Logging truck load securement (Part 26)** – for more information, read the article in the Transportation Section.
- **Housekeeping amendments (Parts 14, 24, and 25)** – Part 25 refers to Industrial Camps Regulations.

For a more detailed look at these changes, download the **WorkSafeBC overview**. Additional information on each amendment will be posted on WorkSafeBC's **Searchable OHS Regulation & related materials** page once the amendments take effect on December 1st. This information will include a primer for each amendment with links to any new and revised OHS guidelines.

Work-Related Deaths & Injuries

For 2021 year-to-date, there have been six work-related deaths in the BC forestry industry. Two were reported in March, two in May, one in late September and the most recent in October. We extend our deepest condolences to the families and friends of the deceased and our sympathies to all those affected by these tragic incidents.

Recent work-related deaths reported to WorkSafeBC

Injury: Fatal
Core Activity: Integrated forest management
Location: Vancouver Island/Coastal BC
Date: 2021-Oct
A pilot was fatally injured at a heli-logging operation on October 4th. The helicopter he was operating crashed into the ocean near Killam Bay which is north of Sechelt, BC.
Read the BCFSC Fatality Alert - Oct 4

Injury: Fatal
Core Activity: Integrated forest management
Location: Vancouver Island/Coastal BC
Date: 2021-Sept
A worker was operating an excavator, constructing a backspar trail near the bottom of a cable-yarding cutblock in preparation for harvesting. The worker was placing puncheon (split logs) ahead of the excavator, to make a stable level surface to travel on, when the track on the downslope side of excavator unexpectedly went into a depression just off the trail. The change in centre of gravity caused the machine to fall over toward its cab side. As the machine fell over, the remains of a decaying tree (stump) outside the block boundary penetrated the door, fatally injuring the worker.
Read the BCFSC Fatality Alert - Sept 28

Recent work-related incidents reported to WorkSafeBC

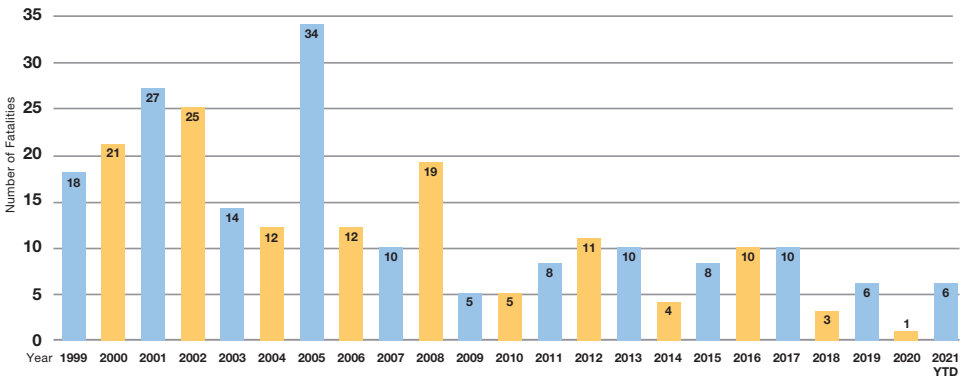
The following sample of work-related incidents recently reported to WorkSafeBC may help prevent similar incidents in your workplace.

HARVESTING

Injury: Injuries to upper body
Core Activity: Manual tree falling and bucking
Location: Northern BC
Date: 2021-Sept
As a faller was falling a deciduous tree, a large branch struck an adjacent dead tree. The dead tree stem then struck the faller.

Injury: Lacerations
Core Activity: Integrated forest management
Location: Northern BC
Date: 2021-Aug
A worker was hooking a strap to a hydraulic cylinder to lift it out of a service truck when they fell backward and struck their head.

WSBC Accepted Harvesting Work-related Death Claims



This information represents the number of work-related deaths by year in BC, up until October, 2021.

Injury: Multiple fractures, lacerations
Core Activity: Brushing and weeding or tree thinning or spacing
Location: Lower Mainland
Date: 2021-Aug
A faller was falling dangerous trees that had been burnt during a wildfire. The trees had been identified by an independent utility owner as potentially hazardous to overhead power lines. As a large spruce tree (24 inches in diameter) was bucked, a section of it landed on another downed tree, which in turn struck a standing burnt tree (10 inches in diameter). This last tree uprooted and struck the faller from behind.

Injury: Fractured vertebrae
Core Activity: Manual tree falling and bucking
Location: Interior BC
Date: 2021-Aug
A faller working on a wildfire incident was struck by one of two trees that unexpectedly fell over.

MANUFACTURING

Injury: Facial injuries, fractured leg
Core Activity: Sawmill
Location: Interior BC
Date: 2021-Oct
A worker wearing a full-body harness and lanyard, attached to an anchor, was travelling in a boom lift platform. The right rear tire of the boom lift entered a pothole and the worker was catapulted in the air. The worker fell and was injured on descent.

Injury: Amputation injury
Core Activity: Sawmill
Location: Interior BC
Date: 2021-Sept
As a worker was clearing an obstruction in a lumber moulder machine, one of their hands contacted the rotating cutting head.

Injury: Close call
Core Activity: Sawmill
Location: Northern BC
Date of Incident: 2021-Sep
A fire broke out in the log yard of a sawmill. Fire departments responded with air and ground support. The fire was eventually contained and allowed to burn out in a controlled manner. No one was injured and no structures were damaged.

Injury: Close call
Core Activity: Sawmill
Location: Lower Mainland
Date of Incident: 2021-Aug
A cedar sawmill was shut down but undergoing maintenance work during the day. During the shutdown, workers were installing a catwalk above the outside green chain. The work involved welding and grinding (hot work). At the end of their day, multiple workers did a walk-through of the hot work area. Hours later a fire started in the green chain area and spread to the sawmill, causing substantial damage. Firefighting efforts were hampered by strong winds and the lack of an adequate on-site water supply. The cause of the fire is under investigation.

Injury: Lacerated hand
Core Activity: Wooden product manufacture
Location: Vancouver Island/Coastal BC
Date of Incident: 2021-Jul
As a worker was operating a custom-guarded automated radial arm saw, one of the worker's hands contacted its running blade.

TRANSPORTATION

Injury: Minor injuries (2 workers)
Core Activity: Helicopter visual flight rule operation
Location: Lower Mainland
Date of Incident: 2021-Mar
Two workers were travelling to a remote work location by helicopter when the helicopter crash-landed in a densely forested area. The workers were transported to hospital by ambulance. The cause of the incident is being investigated by the RCMP and the Transportation Safety Board of Canada.

Annual Audit Requirement

This year, more than any other, many companies have postponed submitting their annual audit for SAFE and COR certification. Over 1,500 companies have audits due before the end of the December. To avoid getting caught in a rush, submit your audit sooner than later. It should cover the previous 12 months, regardless of when your last audit was conducted. Maintenance audits are due no later than December 31, 2021. Recertification audits are due on your certificate expiry date unless you've been approved for an extension.

To be eligible for COR, your internal auditor must have current training within the past three years. Until the end of the year, BCFSC is offering free auditor training if your company has previously trained an internal auditor. If your company did not do an audit in 2020 and is interested in COR for 2021, a recertification audit is required rather than a maintenance audit. Use the Corrective Action Log (CAL) from your last audit (which may be from 2019 if you missed your 2020 audit).

What if your company didn't work in the past year?

BCFSC still needs to confirm your safety program is in place and that it meets SAFE Certification program requirements to ensure your company is ready to safely restart work. You still need to submit an audit and provide your program forms and policies even if some forms are left blank.

Can a question be left blank?

All questions in the audit form require a response, even if the answer is not applicable or you are checking the "no" box. Leaving a question blank results in zero points for that question which will negatively impact the total audit score.

What's New

BCFSC introduced a new **Online Audit Tool** (OAT) this year. OAT allows you to complete all your responses online and upload supporting documents digitally. OAT also allows you to start your submission, save your progress, bookmark it and then come back later to complete it.

Tricks and Tips for Using the Online Audit Tool (OAT) Successfully

The first step to achieving a successful audit submission using BCFSC's Online Audit Tool (OAT) is to fully understand how to use it.

Technology Tips:

- Audits can ONLY be submitted with our OAT Tool using a computer with a stable, high-speed internet connection and web browser (i.e., Firefox, Goggle Chrome, Edge, etc.). OAT will not work using a tablet or mobile phone.
- Your internet connection must have sufficient broadband to support high-speed video streaming otherwise it won't be enough bandwidth to submit an audit using OAT.
- OAT is not a Microsoft Word document, it is a web-based document submission tool. It is not compatible with Word doc commands.

How to Use OAT Instructions:

BCFSC has ten short videos to walk you through how to use this online audit tool successfully. We highly recommend everyone take the time to watch these videos before using OAT to submit your annual audit.

Learn how to use OAT by visiting our webpage. On this page, you will find our OAT introduction video, downloadable common questions on **How to Use OAT** and OAT instruction videos covering:

1. Preparing Documents
2. Saving Progress
3. Adding a CU
4. Missing Info
5. Entering Split Years
1. Adding Attachments
2. Adding Paper Documents
3. Adding Notes
4. Audit Submission
5. Multiple Day Progress

Continued on page 8...

Continued from page 8...

Audit Reporting Requirements & Tips:

For those who have submitted a paper audit in the past, you will notice the questions from the paper audit tool are the exact same as the ones from the online audit tool. IOO's will still need to answer 12 questions for 14 points and Small Employers will still need to answer 22 questions for 24 points.

Your audit will need to be submitted using the correct online audit tool for the size of your company. If you are a SEBASE sized company (6-19 workers) then you must submit your audit using the SEBASE OAT. You cannot submit your audit using the ISEBASE audit tool for 2-5 workers as the reporting requirements are different.

OAT allows you to file and save your audit reporting forms and answers online throughout the entire year eliminating the need to populate/answer all questions at one time (i.e., last minute audit preparation - right before the audit is due).

There are two different options to successfully answer audit questions. It is important to watch the videos and learn how to enter and save a comment/note and/or how to attach and save a document to each question.

Option 1. Type out the answer in a note in the field/box available in each question.

Option 2. Attach a document that corresponds to the question's reporting request. For example, submit an Emergency Response Plan (ERP) document.

Option Examples:

Small Employers' audits for SEBASE and ISEBASE

Question 9a) Asks you to list the Safe Work Procedures (SWP) you use daily in your operations.

Options - You could type out the whole list of your SWP into the field box OR you could attach a digital document with all SWP listed on it. (i.e., a scan of the Table of Contents from your OH&S Program where the SWP is already listed.)

The maximum file size for document submissions is 85MB. You will have to ensure the total size of all scanned documents in your final audit submission does not exceed 85MB per file.

Before you submit your OAT, save a copy of the documents and responses to all questions. Once the OAT is submitted, you will no longer have access to modify or change anything in your submission.

Your audit is ready to submit when all fields are populated. You can now submit your annual audit online and you will receive a confirmation from BCFSC acknowledging receipt of your audit.

If you have any questions about OAT submissions or which OAT Tool to use for your company size, contact the BCFSC between 8am – 5pm, Monday through Friday at 1-877-741-1060.

SAFE Companies Forms Project

Planning has started for the SAFE Companies Forms project. SAFE Companies are working with a vendor to develop an App to support small employers in building and maintaining their SAFE Companies Certification record keeping requirements. Some of the App's basic functions will enable employers to:

- Document/Record SAFE Companies required activities
- File the records in a secure platform
- Store company SWP's (available on and offline)
- Submit the record to stakeholders (only if wanted!)
- Compile the records for the yearly SAFE Companies Audit
- Support SAFE Companies Audit submission requirements

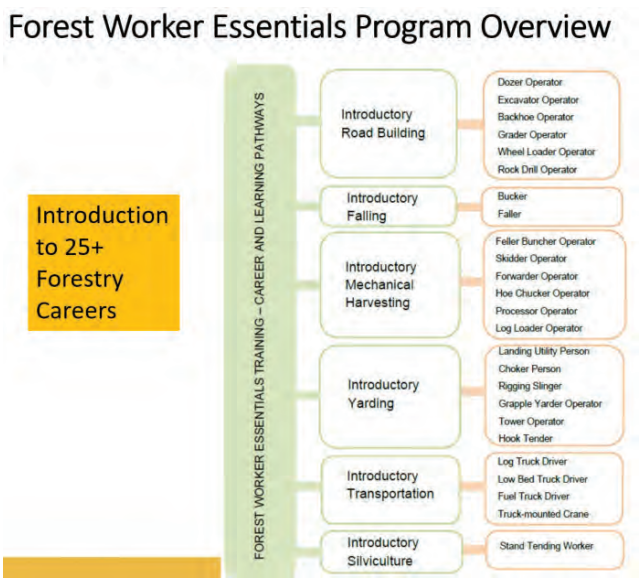
The project team are currently planning discovery sessions with some contractor associations and larger licensees. There is also a short survey that will be sent to SAFE Certified companies (<20 workers) to gather information on their SAFE Companies record keeping practices and needs. Once the survey results are compiled, we will plan a facilitated session with the vendor and stakeholders to identify the business requirements for the app with the intent of launching it in 2022.

Forest Worker Essentials

In our September 2021 FSN, we reported the Forest Worker Essentials program will be available to approved training providers in 2022.

This program is intended as a worker-readiness training program and designed to align with the worker training and assessment resources available on BCFSC's website. Additionally, after the program graduates have secured employment, their employers can choose to utilize optional BCFSC on-the-job training and assessment materials to support worksite development.

The Forest Worker Essentials content includes an introduction to over 25 forestry-related careers.



The program includes the following components:

Employable Skills

- WHMIS
- Fall Protection
- S-100
- First Aid Level 1 with Transportation Endorsement

Foundation

- Describe Essential Skills
- Describe and Apply Employability Skills

General Forestry Occupational Skills

- Describe Forest Industry
- Personal and Worksite Safety
- Communicate in the Workplace
- Workplace Documentation
- Emergency Preparedness
- Describe and Apply Workplace Attributes

Legislation and Regulation

- Regulations and Legislation related to General Forestry
- Regulations and Standards Related to Heavy Equipment

Hazards

- Risk & Risk Control
- Recognize, Evaluate, and Control Hazards related to:
  - General Forestry
  - Yarding
  - Falling
  - Road Building

Yarding and Mechanized Harvesting

- Signals Used in Forestry
- Rigging Components and Apply Basic Rigging Practices
- Yarding and Mechanized Harvesting Equipment
- Harvesting Methods
- Winch Assist

Road Building

- Describe Road Building Equipment
- Job Control and Engineering Basics
- Soil and Aggregates
- Environmental Awareness, Protection and Enhancement

Mechanical

- Tools and Equipment for Heavy Machinery
- General Heavy Equipment Inspection and Maintenance Procedures
- Mechanical Systems

Stand Tending

- Describe Stand Tending

Other Skills

- Resource Road Driver Knowledge Unit
- Describe and Operate Chainsaw

Program Highlights:

- The program is for a minimum of six weeks, plus optional one week simulators
- 15 days industry orientation; 14 days field site/hands on/practical/guest speakers
- There is flexibility to consider regional needs; a training provider can add more hands-on content that is relevant to the employers in their area
- Instructors have 10 years general forest industry related experience
- Industry participation is built into this program and is critical for success
- The intent is to provide new workers that employers want to hire
- Graduates will have a base-level of knowledge and be ready to learn on the job

Who can deliver this program?

- The program can be delivered by:
  - Educational institutions
  - First nations organizations
  - Employers
  - Industry associations
  - Others that have entered into a Service Agreement with BC Forest Safety Council
- There is a rigorous application process for training providers to ensure that the training standard is upheld
- Approved training providers can deliver the Forest Worker Essentials program standalone, or add other content to it as part of their program

Applications to deliver the program in 2022 are available on our website.

If you have any questions about the Forest Worker Essentials Training Program, please contact **Allison Thompson**, BCFSC Manager Training & Standards.

Canada
British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.

BCFSC Training Activity Shifts into 2022

2021 TRAINING HIGHLIGHTS

2021 has been a busy year for BCFSC-supported training. Despite COVID-19 challenges, approximately 900 people were able to safely participate in BCFSC in-person training and many more accessed our online training. This training success was a direct result of the support from our instructors, training participants and venues.

Here are some 2021 training highlights: (as of Nov. 4)

In-person Training

- 80 Basic Chainsaw Operator
- 40 Basic Incident Investigation
- 161 Forest Supervisor (Modules 1-3)
- 25 Falling Supervisor
- 568 Resource Road Training

Online Training

- 31 Serious Incident and Fatality Investigation
- 31 Phase Congestion
- 881 Resource Road Knowledge Unit
- 78 Forest Safety Overview
- 345 Small Employer Initial and Refresher

In total, over 2,500 people participated in BCFSC's various training programs.

In 2021, BCFSC made numerous changes to improve content and access to training. Our Resource Road Driver and Forest Supervisor courses were both updated with new content and improved delivery style. Additionally, Small Employer OHS training and Falling Supervisor training are both in development for new content and a fresh look for 2022. We also added new, free online courses on Phase Congestion, Blasting for Road Building, Wood Fiber Manufacturing Hazard ID & Risk Assessment, Professional Industry Driver, Yarding, Trainer and Assessor.

Upcoming 2022 Training

Classroom Training Courses

Our classroom participants often tell us that in-person training is important and their learning is reinforced by the interaction and shared experiences with the trainer and other participants. In-person training remains a priority for BCFSC. In 2022, we will continue to work closely with our venues, trainers and service providers to ensure a safe learning environment for all who attend classroom sessions around the province.

Go to our training calendar on our website to see what's offered in your region and click any program in the course list for further details.

Online Training Courses

BCFSC online training is convenient, self-paced, available 24/7 and most courses are available free of charge.

Online training is available for workers and employers in harvesting and wood fibre manufacturing and allows you to access training wherever you are in the province. We are committed to continual improvements in our training programs, so check our social media channels and website regularly for notifications on new courses and course updates.

Check out our FREE online training options now available through our Online Learning Centre:

Self-enroll Courses - Forestry Occupations

- Basic Forest Worker
- Professional Industry Driver
- Yarding:
  - Chokerperson
  - Grapple Yarder
  - Hook Tender
  - Landing/Utility person
  - Rigging Slinger
  - Tower Operator

Self-enroll Courses - Manufacturing

- Wood Products Manufacturing Hazard Identification and Risk Assessment
- Combustible Dust Training for:
  - Workers
  - Managers
  - Contractors

Self-enroll Courses - General

- Serious Incident Investigation
- Phase Congestion
- Blasting Hazards and Safety
- Resource Road Driver Knowledge Unit
- Trainer Knowledge Units
- Assessor Knowledge Units

Requested Training:

We hope to see you at one of our scheduled training courses. However, if the time and place don't work for you we also offer group training sessions by request. We'll work with your company to bring our courses to your location at a time most convenient to you and your operation. Email us at **training@bcforestsafe.org** to learn more.

Log Load Securement Regulation Changes Set for Dec. 1

By Dustin Meierhofer, Director, Transportation and Northern Safety

The process of securing a load of logs has historically involved the driver throwing and securing a cable wrapper around the load prior to transportation. In order to meet WorkSafeBC Part 26 – Logging Truck Load Securement Regulations, the load must have a minimum of two wrappers that have a Mean Breaking Strength of 12000lbs which usually consists of a 32 foot, 3/8-inch cable wrapper weighing 13 to 13.5lbs. This includes both short wood and long wood hauled on and off highway throughout the province.

In 2015, forest industry representatives approached WorkSafeBC to discuss the potential to amend Part 26 to better align with National Safety Code Standard 10 (NSC 10) - Cargo Securement. The intent was to align the regulations so log truck drivers were not subject to two separate and significantly different sets of regulations. The other benefit was to provide drivers flexibility in choosing load securement methods.

WorkSafeBC was open to discussing options for Part 26 and as a result the regulation went through a lengthy review and amendment process which is now complete. WorkSafeBC intends to implement the new regulation on Dec. 1, 2021 which means all log load securement activities within BC will have to meet these new requirements by that date.

Some key changes to the regulation include:

Definition of a Wrapper: Chain, wire rope, synthetic rope or webbing, together with a tensioning device, that is wrapped securely around a log load on a log transporter, and not attached to the log transporter.

Definition of a Tiedown: A chain, synthetic rope or webbing together with a tension device that is placed over a log load and attached to one or more points on the log transporter.

Definition of a Log Stack: A log load that is a separate pile of logs of a least two layers lying lengthwise or crosswise on a log transporter.

On Highway Transport: A log load must be secured in accordance with the federal standards. NSC 10 as it is applied in BC requires the aggregate working limit of tiedowns/wrappers used to secure each log stack to be at least 1/6 of the weight of the stack. With a minimum two tiedowns/ wrappers required for each log stack to ensure the logs are secured effectively.

Given the above, options for securement consider load/stack weight. This means that 5/16-inch wrappers will be a viable option for many short wood loads. For long wood, 3/8-inch wrappers will be necessary unless load weight dictates otherwise. Tiedowns are also now an option but must attach to anchor points on the trailer. Tiedowns and anchor points must also meet the working load limit requirements applicable to the log stack weight. The application of NSC 10 in BC provides flexibility in selecting load securement methods however it is critical that load stack weight and working load limit be considered when selecting securement devices.

Off Highway Transport: If the longest log to be secured by the wrappers or tiedowns is no more than 10.7 m (35 ft) long, at least two wrappers or tiedowns are required, each of which with a working load limit of at least 8.9 kN (2000lbs).

If the longest log to be secured by the wrappers or tiedowns is more than 10.7 m (35 ft) long, at least three wrappers or tiedowns are required, each of which with a working load limit of at least 13.3 kN (3000lbs).

Off highway options for securement are based on log length. When using cable wrappers, 5/16 inch will be a viable option for short wood loads while 3/8 inch for long wood loads. As they meet the 2000lb and 3000lb requirements respectively.

From an operational standpoint, the changes to Part 26 provide more flexibility in load securement options and provide an opportunity to identify and implement new load securement options, processes, techniques and tools that can be effectively utilized by industry and most importantly log truck drivers.

Read the **revised WorkSafeBC regulation.**

If you are involved with the transport of logs on or off highway in BC, it's important to review both the NSC 10 and WorkSafeBC regulations in detail as there are other requirements that have not been discussed within this article.

Addressing Driver Injuries Related to Log Load Securement

Load securement in log hauling is a critical step which must be done correctly to ensure the safety of workers and the public. The process of securing a load of logs has historically involved the driver throwing and securing tiedowns, or wrappers (in British Columbia), around the load prior to transportation.

A typical load wrapper used in BC consists of a long section of 9.5 mm (3/8 in) cable with lengths of chain on each end. The weight of these wrappers ranges from 5.9 to 6.1 kg. (13 to 3.5 lb.) for a 9.75 m. (32 ft) long wrapper. The wrapper is coiled, and the driver throws one end over the load. Both ends are secured together with a binder.

This method has been effective for securing log loads, but as shown by WorkSafeBC injury statistics, throwing the wrapper can result in driver injuries, primarily shoulders. These injuries are often caused by repetition, poor technique, weight of the wrappers, inadequate risk assessment, limited availability and/or understanding of load securement options and other human or operational factors. WorkSafeBC has recorded 89 overexertion injury claims from 2013 to 2018 that occurred when the driver was securing the log load. Of these, 60% occurred while throwing wrappers, 30% while cinching wrappers and 10% when removing wrappers. The overall cost of injuries related to log load securement has been more than $4 million in the last 10 years (WorkSafeBC 2021).

In order to address the risk to drivers, the Load Securement Working Group has recently initiated a project to investigate solutions to reduce or eliminate load securement related injuries. The project is being conducted in three phases with phase one now complete.

The objectives of phase one were to:

- Understand available load securement practices and technologies through a literature review and survey of contractors involved in log hauling activities.
- Present preliminary cost-benefit analysis of the most promising load securement solutions.

The goal is to improve the understanding of load securement practices and to identify the most promising solutions that have potential to reduce or eliminate load securement related injuries while still meeting operational and regulatory load securement requirements. Phase One findings indicate there are many options being used around the world to address load securement and injury risk. These options range from simple tools to fully automated systems that allow the driver to initiate the load securement process from the cab of the truck. Read the Load Securement Phase One Report developed by FP Innovations.

Phase Two and Three of the project is expected to be completed by summer 2022 and will look at the most promising options and trial them with log hauling contractors to ensure they meet both the drivers and BC's forest industry needs.

New Resources for Internal Assessment of Drivers

New resources have been developed as part of the Professional Industry Driver (PID) program to assist contractors in assessing workers. These tools have been developed with support from the Log Truck Technical Advisory Committee (LTTAC) and can be used to support the OHS Regulation Part 3.5 regulatory worker inspection requirements.

The Contractor Internal Assessment Tool – Practical Component and the Contractor Internal Assessment Tool - Knowledge Component

The contractor resources are based on the Professional Log Truck Driver Endorsement tools and can be used to assess the knowledge and practical skills of the driver and additional requirements for the company's safe operating procedures.

These user-friendly, fillable PDFs can be used with a smartphone, tablet or computer. They can be stand alone tools or incorporated into current assessment procedures.

School Bus Impaled by Logs After a Collision in Barrhead, Alberta

On November 2nd, 2021, a school bus was struck by logs from a log truck in Barrhead, Alberta. The media reports indicate overhanging logs on the back of the trailer swung out as it was turning left and struck the bus which was stopped at the intersection. The logs went through a window and dislodged some unoccupied seats.

The school bus occupants and the log truck driver were not seriously injured however one student was taken to hospital with a probable concussion. According to RCMP, the driver is facing charges for the vehicle being overweight and improperly loaded.

Log Truck Safety Information:

- Ensure truck and trailer are in good working order with thorough pre-trip inspections and regular maintenance.
- Ensure each load is properly loaded and secured. Don't leave the loading area until you have inspected the load and are satisfied it is safe.
- Be aware of the in-tracking of trailers and any logs that may act like sweepers.
- Do not operate an overweight vehicle.
- Stop and check the load before entering public roads.
- Be vigilant, particularly on busy public roads.

Read the **CBC news report**, **CTV follow-up report** or access the **BCFSC November Safety Alert** for more details.

New Professional Industry Driver Video

A new video highlighting the Professional Industry Driver (PID) Program is scheduled for release this January. The video is intended to help increase awareness of this industry-recognized training and attract new workers to the sector.

Robust training programs are important as more young/new workers enter the workforce. The PID program provides both the knowledge required to be successful in the role of a Professional Industry Driver as well as funded opportunities to work with a mentor to further develop skills.

The new video will include perspectives from both new drivers and mentors and will also include footage of drivers in the wood fibre sector, an important part of the industry with increased operations in many areas of the province.

Key partners in the video include BCFSC, Arrow Transportation and Excel and is produced by Case Communications who also developed the **Resource Road Safety** video.

Jesse James – R Spence Contracting Ltd

Submitted article

Aside from sleep disorders, there are many sleep related reasons why you may feel fatigued. Here is a checklist with some tips to help you change your habits and develop good sleep hygiene.

1. Napping

Do you nap during the day? If you want to wake up feeling refreshed from a nap you need to avoid falling into slow wave sleep. This means you shouldn't nap for more than 15-20 minutes to achieve maximum alertness and energy when you wake up. A short nap will give you an energy burst of around 3 hours.

2. Weekend Lie-ins

Love a lie- in? Our circadian timer (the sleep clock in the brain) runs on a rhythm which functions optimally when it works to a regular routine. Unfortunately, we have some bad news for you weekend lie-in folks - this routine should be 7 days a week! Respect your bed time and get up at the same time on the weekend. The good news is that although you will miss out on your weekend lie-ins, you won't need them as much AND you will actually feel much better overall. Okay, at most, try and keep your extra lie in time to thirty minutes.

3. Watching TV and Social Media in Bed

Do you check emails and Facebook or fall asleep watching Netflix constantly? In the hour before bed, you should have a relaxing sleep routine. With today's 'always on' super busy lifestyles we tend to be stimulated right up until the moment we turn the lights off to sleep. Our brains and bodies need time to unwind and prepare for bed time. In order to get the most restorative sleep, you should avoid stimulating activities such as exercise, using electronic devices and generally blue light an hour before bed. Electronic devices emit light of a blue wavelength, which tricks our brains into thinking that it is daytime. This disrupts the brain's natural sleep-wake cycles, which are crucial for the optimal function of the body.

4. Caffeine After Tea Time

Enjoy an afternoon coffee? Avoid caffeine at least 4 hours before bed. This includes coffee, tea and even chocolate! It takes up to 6 hours for half the caffeine consumed to be eliminated. We advise that no caffeine should be consumed in the 4 hours before bed time.

5. A Couple of Glasses of Wine With Dinner

A couple of glasses won't do any harm, right? Drinking alcohol helps you fall asleep, however, it also fragments sleep and leads to more arousal overnight. This means there is a good chance you will wake up in the middle of the night after a few drinks. This will in turn cause you to be more exhausted the next day.

6. Eating Dinner Too Close To Bed Time

Working late, cooking dinner, before you know it it's 8pm! Eating suppresses melatonin production, the hormone necessary for getting us ready to sleep. We recommend eating 3-4 hours before bed time in order to sleep well.

7. The 20 Minute Rule

Something on your mind or just can't nod off? If you are not asleep within 20 minutes, get up! Make a cup of camomile tea, read for a while or listen to some relaxing music. Just don't put the TV on! Staying awake in bed and fretting about not sleeping is not conducive to falling asleep. It is much more effective to get up, reset and try again. On top of this, being strict with your time in bed and sleeping helps your body and mind link your bed with sleep.

8. Worry Time

Find yourself thinking of all the things you haven't done? Set aside 'worry time' in the evening and make plans and solutions, then go to bed with a clear mind.

Happy Sleeping!

fatiguefit.com

BCFSC & WorkSafeBC Webinar
– Wednesday, November 24, 2021

At the end of August, WorkSafeBC sent letters to employers registered in Integrated Forest Management (703008) and Manual Tree Falling and Bucking (703013) regarding supervision, more specifically relating to falling supervision. In response, the BC Forest Safety Council (BCFSC) sent information outlining what a falling operation is expected to have completed and readily available to all crew members onsite. Review this **communication** which can also be found on our website.

BCFSC and WorkSafeBC also partnered to host a webinar on Wednesday, November 24, 2021 from 9:00am – 11:00am. Discussion topics included effective supervision for hand fallers and key responsibilities for forestry safety. If you missed the webinar, a recording will be made available in the coming weeks. Check our social media channels or our home page for a link to the recording.

WORKSAFE BC

Prevention Services
Mailing address: PO Box 5350 Stn Terminal, Vancouver BC V6B 5L5
Phone 604.276.3100 | 1.888.621.7233 | worksafebc.com

Date

Organization name
Mailing address line 1
line 2
line 3
line 4, etc.

Dear Sir/Madam:

I am writing this letter to draw our collective attention to the high number of workplace incidents that have occurred in the forestry industry in British Columbia this year and what we can do to support worker health and safety.

A number of these workplace incidents are associated with manual tree falling and have resulted in serious and fatal consequences for workers. In separate incidents during a short two-week period earlier this spring, two hand fallers suffered fatal injuries and a third faller had a near-miss that could have resulted in a fatal injury. Although the fallers involved were all experienced and known for their good workmanship, the safety systems required to keep them safe failed to protect them.

While investigations are underway to identify the definitive causes of these incidents, it is of benefit to everyone in the industry to remind themselves of the circumstances that often lead to incidents like these and what can be done to address them before another tragic outcome occurs.

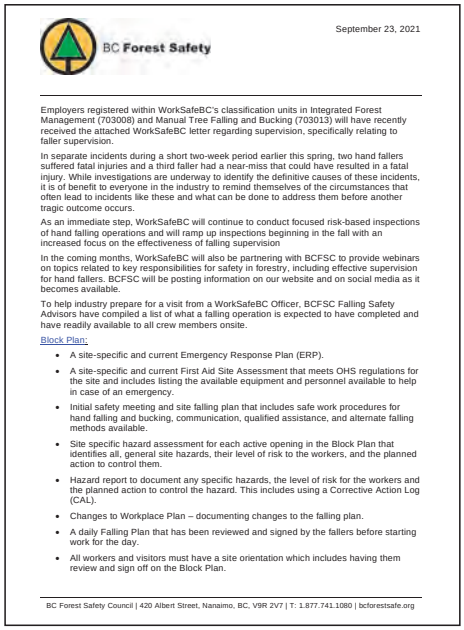
Lack of adequate supervision in hand falling operations

Hand fallers have an excessively high injury rate and serious injury rate. The injury rate in the Manual Tree Falling Classification Unit was 20.1, nearly ten times the provincial average of 2.15. The serious injury rate was 6.5, compared to the provincial average of 0.27. Each of these serious injuries represents life-changing consequences for both the workers and their loved ones – and even one such injury is too many when the incidents that cause them are often preventable.

During workplace inspections, our forestry officers have identified a lack of adequate supervision as a primary factor in health and safety issues in this industry. Inadequate supervision most often occurs on sites where the faller supervisor is also an active hand faller. This can be problematic because supervisors are required to have adequate time to perform duties such as participating in the planning of falling work. Other duties should not take them away from their role as a supervisor.

Additionally, the level of supervision provided is often not appropriate for the level of risk or changing conditions. Finally, the supervisors themselves must be effectively supervised by their employers and, as applicable, the Prime Contractors must evaluate and scrutinize their effectiveness both as supervisors and in their capacity as active fallers.

WorkSafeBC Letter



BC Forest Safety

September 23, 2021

Employers registered within WorkSafeBC's classification units in Integrated Forest Management (703008) and Manual Tree Falling and Bucking (703013) will have recently received the attached WorkSafeBC letter regarding supervision, specifically relating to faller supervision.

In separate incidents during a short two-week period earlier this spring, two hand fallers suffered fatal injuries and a third faller had a near-miss that could have resulted in a fatal injury. While investigations are underway to identify the definitive causes of these incidents, it is of benefit to everyone in the industry to remind themselves of the circumstances that often lead to incidents like these and what can be done to address them before another tragic outcome occurs.

As an immediate step, WorkSafeBC will continue to conduct focused risk-based inspections of hand falling operations and will ramp up inspections beginning in the fall with an increased focus on the effectiveness of falling supervision

In the coming months, WorkSafeBC will also be partnering with BCFSC to provide webinars on topics related to key responsibilities for safety in forestry, including effective supervision for hand fallers. BCFSC will be posting information on our website and on social media as it becomes available.

To help industry prepare for a visit from a WorkSafeBC Officer, BCFSC Falling Safety Advisors have compiled a list of what a falling operation is expected to have completed and have readily available to all crew members onsite.

Block Plan:

- A site-specific and current Emergency Response Plan (ERP).
- A site-specific and current First Aid Site Assessment that meets OHS regulations for the site and includes listing the available equipment and personnel available to help in case of an emergency.
- Initial safety meeting and site falling plan that includes safe work procedures for hand falling and bucking, communication, qualified assistance, and alternate falling methods available.
- Site specific hazard assessment for each active opening in the Block Plan that identifies all, general site hazards, their level of risk to the workers, and the planned action to control them.
- Hazard report to document any specific hazards, the level of risk for the workers and the planned action to control the hazard. This includes using a Corrective Action Log (CAL).
- Changes to Workplace Plan – documenting changes to the falling plan.
- A daily Falling Plan that has been reviewed and signed by the fallers before starting work for the day.
- All workers and visitors must have a site orientation which includes having them review and sign off on the Block Plan.

BC Forest Safety Council | 420 Albert Street, Nanaimo, BC, V9R 2V7 | T: 1.877.741.1080 | bcforestsafe.org

BCFSC Communication

The Sked® Stretcher System

During a recent advocacy visit, Falling Safety Advisor, David Adshead was introduced to The Sked® Stretcher, a revolutionary rescue basket option. The Sked Stretcher is a compact, versatile and durable emergency rescue stretcher designed to provide outstanding patient protection and security in any situation.

"If anyone has used a metal basket stretcher, you know how easily it gets caught in branches and brush, making it near impossible to move on your own. The Sked stretcher is rolled and stored in a sturdy, compact backpack which makes it really easy to move from one location to another." explains Adshead.

Get more information on the SKED stretcher.

New Faller Training - Northwest Bay

The fall session of New Faller Training took place in Northwest Bay from September 27 – October 29, 2021. Thank you to Sam Stanko and Mike Bowater from Mosaic for supplying the timber site and their continued support of the program.

Left to right: Lead Trainer John Jacobsen, Assistant Trainer Wayne Miller, Participants Casey Harrison, Jesse Walters and Kevin Bartkowski, and Assistant Trainer Shannon Cupper.

Falling Safety Advisor Activities

2021 Falling Safety Advisor Activities as of October 31, 2021

- 10 Faller Certifications (4 New Faller Trainee, 6 Challenge)
- 5 Falling Supervisor Certifications
- 199 Faller Visits
- 7 Certified Falling Supervisor Quality Assurance Visits
- 36 Certified Falling Supervisor Visits
- 17 Trainer Quality Assurance Visits
- 18 Company Reviews

Upcoming New Faller Training for 2022

Two new faller training courses are scheduled for 2022. For questions about the program, please visit BCFSC website or email faller@bcforestsafe.org.

Course Dates 2022 (locations to be determined)

- April 4 – May 6, 2022
- September 26 – October 28, 2022

To register, please contact the College of the Rockies at 250-344-5901.

Wood Products Manufacturing Hazard Identification and Risk Assessment Training

BCFSC worked in partnership with the Manufacturing Advisory Group (MAG) to develop an interactive online training program targetted at workers in wood products manufacturing. This free online course focusses on understanding what hazards and risks are and the difference between them, what types of common hazards are found in manufacturing worksites such as sawmills and wood pellet production facilities and how to identify, assess and control the common hazards in these facilities.

The course takes about 1.5 hours to complete and is self-paced with flexible access available 24/7 through the BCFSC online learning centre.

Learn more about **Hazard Identification and Risk Assessment Training** enrollment or course details.

Critical Control Management Initiative on Track for Wood Pellet Sector

Critical Control Management (CCM) is a game-changer for the wood pellet sector and the uptake at every plant across BC is testament to the industry's ownership of and commitment to safety and leadership.

Despite significant safety advancements in the pellet industry, the potential remains for pellet plants to experience major unwanted events (MUEs) such as explosions fires and fatal accidents, that can't be prevented by traditional approaches to safety.

In late 2020, WPAC and BCFSC partnered to pursue a process known as Critical Control Management (CCM) which is already widely used in mining, chemical, and oil and gas industries around the world, but it's new to the wood pellet industry. A CCM committee comprised of representatives from WPAC, BCFSC and Dalhousie University was struck in 2020 to support personnel at each plant as they worked to complete and submit bow ties and critical controls to WorkSafeBC by late 2021.

Participation has been key to the success of the initiative. From the outset, WPAC members embraced the initiative wholeheartedly with 14 of the 15 plants now completed with the 15th underway. The information developed at the workshops will be put into a workable template for the plant to use when it submits its plan to WorkSafeBC.

"Overall the plan was ambitious and required a significant amount of effort—but we all knew it will make our plants safer," says Gordon Murray, WPAC's executive director. "Companies will understand their equipment better; workers will be able to operate and maintain equipment safely; the equipment will be more reliable; and plant managers will know what activities are most important."

Canfor Energy North Limited Partnership in Chetwynd, a joint venture partnership between Canfor and PacificBioenergy, completed the first pilot critical control project in collaboration with the BCFSC and Dalhousie. Grace Cox, the Safety Manager, Wood Products Canada says the initiative has provided lots of great learning.

"We were able to gain a better understanding on how the process works, the value of involving all the stakeholders, leadership, trades and operators in the process," says Cox. "Overall the site has a better understanding of their critical control systems and have clearly defined expectations, and we are better equipped to train our new employees."

The multi-day workshops were supported by Kayleigh Rayner Brown, P.Eng., M.A.Sc., Director of Obex Risk Ltd., who specializes in process safety and hazard analysis. BCFSC Safety Advisors, Bill Laturnus and Tyler Bartels provide on-site and online support to all 15 operations for the workshops as well as ongoing support helping the operations develop their internal systems to effectively manage these critical controls to ensure they operate 100% of the time.

"The success of the initiatives is a direct result of both the commitment at every level of the companies and getting the right people to the workshop," says Laturnus. "As a result, we were able to identify tangible and practical changes that could be easily implemented."

In addition to the workshops, the CCM committee produced a **series of videos** to aid in the understanding of the process and its importance to employee safety. WorkSafeBC is funding a Dalhousie University Department of Process Engineering and Applied Science research project that will build on this work and transfer this knowledge to employees and employers throughout the wood pellet industry across Canada and internationally.

You can learn more about the CCM initiative at WPAC's **website**.

From left to right: Kayleigh Rayner Brown, P.Eng., M.A.Sc., director of Obex Risk Ltd.; Bill Laturnus, BCFSC safety advisor; and Tyler Bartels, BCFSC safety advisor.

Free Safety Foundations Certificate Available Now

By Gordon Murray, Executive Director, WPAC

Hundreds of Canadians across the wood pellet sector have earned their Safety Foundations Certificate after participating in a six-part Safety Foundations webinar series produced by the Wood Pellet Association of Canada.

Operating personnel at every level of the pellet plant, supervisors, senior management, control operators, other industry participants, equipment suppliers, and safety professionals have participated in the series already.

"I've worked in the pellet industry for 26 years, and safety is lifelong learning, with new data and processes being developed every year so these webinars are critical to keeping up with the latest information and guidance," says Jamie Colliss who works as Senior Plant Manager at Pinnacle Renewable Energy, Part of Drax.

Each webinar is about an hour long and looks at critical safety topics such as bow tie analysis, human-machine interface and effective alarms, and safe handling and storage of biomass. At the end of each webinar, participants are required to pass a quiz before they can proceed to the next level.

"Through these webinars, employees are learning how to improve their own safety performance, and ultimately

contributing to a safer industry," says Dr. Fahimeh Yazdan Panah, Director of Research and Technical Development at WPAC and who led the safety foundations initiative.

"We strongly encourage everyone in the pellet industry to take this course and we hope managers and personnel at pellet plants will share this free service with their co-workers and safety teams," says Cherie Whelan, Director, SAFE Companies at the BC Forest Safety Council. "It's a small commitment of time with big returns."

The Safety Foundations Webinar Series was produced by the Wood Pellet Association of Canada's safety committee in co-operation with WorkSafeBC and UBC Biomass and Bioenergy Research Group, BioMass Canada and media partner Canadian Biomass Magazine. You can enroll for the webinars here.

Getting to Safer by Isolating the Problem

The Wood Pellet Association of Canada, BC Forest Safety Council and Dalhousie University recently partnered on an initiative to improve pellet industry practices regarding equipment isolation with an eye on minimizing the impact of potential combustible dust fires, explosions and deflagrations within wood pellet plants.

Although the industry's goal is to eliminate such incidents altogether, we also want to ensure that if such an incident should occur, that any damage would be effectively isolated. Process safety and hazard analysis expert Kayleigh Rayner Brown, P.Eng., M.A.Sc., Director of Obex Risk Ltd. was commissioned to lead a project on analyzing deflagration isolation for safer operation and is conducting the work alongside BCFSC Safety Advisor Bill Laturnus. Funding for the project was provided by Dalhousie University, arranged by Dr. Paul Amyotte.

Combustible wood dust presents a significant risk of fires and explosions in all wood products manufacturing facilities – including wood pellet plants – where much of the machinery and equipment used has a propensity for generating ignition sources and the processes can involve suspended dust and dusty conditions. A mere spark can cause a dust explosion or serious fire and result in catastrophic loss of life, injuries, and destruction of buildings. And often these incidents will spread throughout an entire production facility rather than being isolated to an individual process area within the plant.

In a dust explosion, the **deflagration** processes happen so rapidly that the

Continued on page 17...

Deflagration & Isolation

According to the National Fire Protection Association (NFPA)

- A dust deflagration is defined as "propagation of a combustion zone at a velocity that is less than the speed of sound in the unreacted medium" NFPA 652 (2019).
- Deflagration isolation is the technique for the "interruption or mitigation of flame, deflagration pressures, pressure piling and flame-jet ignition between enclosures that are interconnected by pipes or ducts" NFPA 69 (2019).

Manufacturing Safety

Continued from page 16...

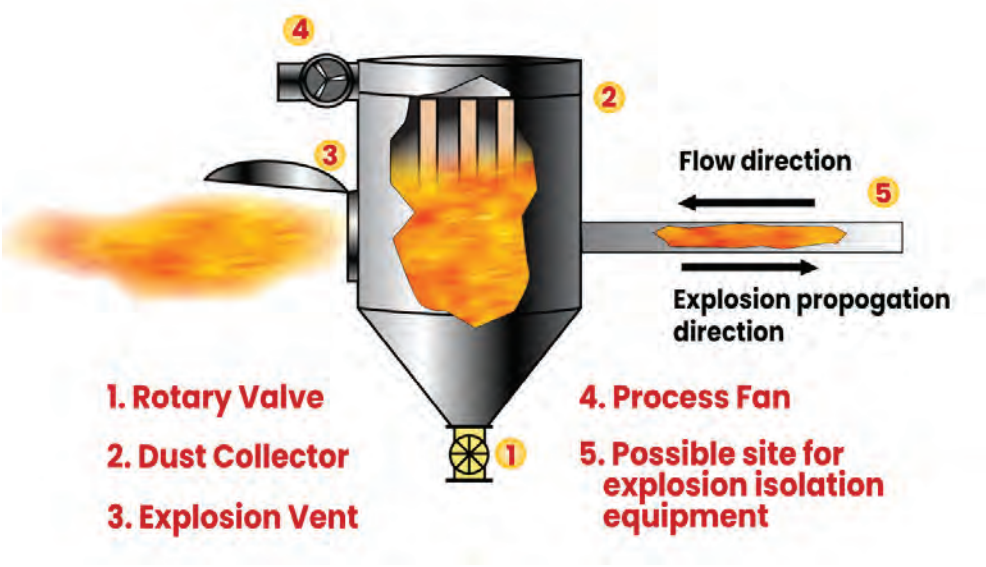
heated air and gaseous fire products (such as carbon dioxide) produce air pressure so extreme it can blow out walls and destroy structures. Deflagration also has the potential to create secondary explosions. This project is focussed on best practices aimed at isolating the potential for this kind of event.

"Basically deflagration can happen in any piece of equipment and the risk is it can have a domino effect and create a secondary explosion, sometimes worse than the first explosion because in a processing facility everything is connected by things like chutes, conveyors and ducts," says Rayner Brown. "The key is to isolate or confine the event to the one piece of equipment so it can't propagate from say the hammermill to the belt dryer."

The project has involved speaking with subject matter experts from wood pellet plants across Canada, engineering consultants with expertise in combustible dust, as well as experts in deflagration isolation equipment supply. Once completed at the end of the year, Rayner Brown will produce an easily digestible resource and reference for wood pellet producers across Canada that provides:

- Information on the different types of deflagration isolation systems that are available
- Information on the installation, operation, and maintenance of these systems to improve understanding
- Summaries of the failure modes and degradation factors associated with these systems
- Considerations for how these failure modes and degradation factors can be managed to make systems more reliable and effective

Rayner Brown says it's clear that conducting a dust hazard analysis (DHA) is key – something that is required under US law but not in Canada. According to Timothy Heneks, P.E. at Dustcon Solutions Inc. a Dust Hazard Analysis (DHA) is a systematic approach to identifying and analyzing the fire and explosion hazards posed by combustible dust within a facility, which is more detailed than a typical walkthrough assessment performed by equipment vendors or insurance companies.



As Rayner Brown has discovered in her interviews, a DHA is just the first step. Incorporating deflagration isolation follows a four-step roadmap:

1. Conduct Dust Hazard Analysis (DHA)
2. Purchase equipment for recommended deflagration isolation points
3. Install deflagration isolation equipment
4. Maintain deflagration isolation equipment

While safety is clearly the priority of this work, Rayner Brown says she's finding that her interview subjects see additional benefits to deflagration isolation.

"In one of my interviews with a pellet producer it became clear deflagration isolation also helped productivity," explains Rayner Brown. "After adopting this approach, they had an event at the plant that in the past would have taken it down for two weeks but in this case the plant was only down for 24 hours and sustained zero damage."

The research is nearly completed, and Rayner Brown's findings and producers' guide will be ready early in the near year. WPAC will also host a free webinar to go over the key findings – stay tuned for announcements about the invite in the coming weeks.

Four-step road map for implementing deflagration isolation:

1. Conduct Dust Hazard Analysis (DHA)
2. Purchase equipment for recommended deflagration isolation points
3. Install deflagration isolation equipment
4. Maintain deflagration isolation equipment

Alcohol Is Not the Friend You Think It Is

By Dr. Delia Roberts

Over the summer of 2021 it seemed as though things were looking up. The forestry industry was booming and COVID-19 infection rates were declining. But instead of decreasing stress in our communities, a very disturbing trend was taking place. In just one week in August in a small, rural BC hospital, emergency admissions due to complications of alcohol consumption were shockingly high - and many of those patients work in the forestry industry.

To understand how this happened, we looked at the Canadian statistics for alcohol consumption. Throughout 2019/2020, the average intake of alcohol per person in BC was amongst the highest of all provinces at almost 550 bottles of beer a year. This works out to just under 1.5 servings per day increasing to 2 servings per day by March 2020. The actual average consumption of alcohol by those that drink is undoubtedly higher since the numbers were based on provincial alcohol sales divided by BC's total population of people aged 15 and over. These averaged numbers included both drinkers and non-drinkers and didn't account for alcohol purchased outside the province or home-made beer, wine and spirits.

We do know that during stressful times alcohol consumption increases. This trend has been a troubling reality during the COVID-19 pandemic. 25% of Canadians aged 18-54 reported an increase in their alcohol intake with the main reasons being a lack of regular schedule (51%), boredom (49%) and stress (44%).

So, what's the big deal you might say? A few drinks now and then doesn't seem that bad. Alcohol is legal; it's available pretty much anywhere, anytime. It's inexpensive, and is a basic part of our culture! We relax, make friends, celebrate and grieve with alcohol. And beer is mostly water anyhow... right? But the severity of the problem becomes clear when we look at hospital admissions. More Canadians are hospitalized for alcohol related reasons than for heart attacks. And closer to home, in areas like northern Vancouver Island and other rural locations in central and northern BC, hospital admissions for alcohol related causes are more than 30% higher than elsewhere in the province. These admissions are also deadly - about half of substance abuse hospitalizations are due to alcohol, but it's alcohol, not opiates, that causes 75% of the deaths.

How much alcohol is too much?

'Low-risk' drinking guidelines have been set by the Canadian Center on Substance Use and Addiction to help people know how much alcohol they can consume without experiencing negative side effects. The guidelines are based on how long it takes the average person to clear alcohol out of their blood stream, but the way our bodies respond to alcohol varies based on our genetics and our current physiology (weight, age, how recently we've eaten, fatigue, dehydration, other medications and drugs, how quickly the alcohol is consumed, how long it's been since we last drank and so on). The guidelines are meant to be maximum amounts, not permission to consume that much every day. They are also based on a specific amount of alcohol, so the volume that makes up one serving varies based on the potency of that particular beverage. Beer, for example, has a lower alcohol content than hard liquor, but there are many different kinds of beer, ranging from 2.3% alcohol for a light beer all the way up to 17% alcohol for some craft brews.

A standard recommended serving size is actually much smaller than what most people are used to:

- 341 ml (12 oz) of 5% alcohol for beer, cider or cooler. This makes the pint glass of beer at the bar 1.7 servings.
- 142 ml (5 oz) of wine at 12% alcohol. Most wine glasses are 10 oz which is equivalent to two servings.
- 43 ml (1.5 oz) of spirits like vodka, rum, whisky, or gin at 40% alcohol. One shot is 3 oz or two servings.

In Canada, the low-risk guidelines recommend no more than two standard drinks per day for adult women, and three for men – but the recommended maximum amount per week is ten for women and 15 for men. The recommendations also state that there should be days where no alcohol is consumed.

It's also important to consider that the difference in the guidelines for men and women are based on average body size. This means smaller men may exceed their safe consumption target even when following these recommendations. Similarly, younger, and older individuals, as well as certain ethnic populations do not process the

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alcohol as quickly and effectively, and therefore could easily exceed a healthy level of alcohol consumption, even if they follow the general guidelines.

What alcohol does inside your body

The reason that it's so important to limit alcohol intake is that flat out - alcohol consumption above low-risk amounts increases your risk of death, and by a substantial amount.

This mainly happens in two ways. Firstly, alcohol affects your judgement, increasing risk-taking behaviours, while at the same time slowing your ability to respond to the risk. Visual information processing and coordination are impaired, reaction time is slowed and you don't process information clearly. For most forestry sector jobs, this is a recipe for disaster. The inherent risk of the job means that anything that impairs your ability to stay vigilant, make good decisions and react quickly can lead to injury and death - to yourself, your coworkers and if you are driving on a road or highway, the public. Given that alcohol can be detected in the body 24 hours following consumption, it seems that even eight hours is not long enough to wait between consuming alcohol and going to work.

Secondly, the chronic effects of alcohol on almost every system of your body are also extremely serious. Here are a few of the most pronounced effects:

- **Brain:** Alcohol affects memory, mood, and your ability to maintain relationships. It decreases the amount of grey matter in your brain. It's addictive, both physically and psychologically and with regular heavy use will take over your life.
- **Heart:** Alcohol causes irregular heartbeats and damages heart muscle. Drinkers are twice as likely to have a heart attack than non-drinkers.
- **Cardiovascular system:** Alcohol increases the likelihood of developing high blood pressure and consuming more than two drinks a day increases the risk of having a stroke.
- **Liver:** Alcohol is processed in the liver, heavy use causes fatty deposits and inflammation and diseases like cirrhosis and hepatitis, but here, the risks are different for women than for men. The increased risk of premature death due to liver failure in men rises from 26% with one serving of alcohol per day to 59% with two servings to 254% with 5-6 servings. In women these numbers are much higher at 139% for one serving per day, 242% for two and 666% for 5-6 servings/day.
- **Pancreas:** Alcohol causes the production of toxic substances in the pancreas that cause inflammation and interfere with the normal function of this organ.
- **Cancer:** A number of cancers occur much more frequently in people who regularly drink alcohol, and the more you drink, the greater the risk. For example, the risk of premature death due to cancers of the mouth and throat is increased by 20-40% with one serving of alcohol per day, 96% with two servings per day and 368% with 5-6 servings per day.
- **Immune System:** Alcohol impairs the immune system both in the short and long term. Your ability to fight off infections is decreased for 24 hours after consuming more than four servings of alcohol, and in the long term, the likelihood of developing serious diseases like pneumonia, tuberculosis and COVID-19 is increased in people who regularly consume alcohol.

When is there a problem?

It's not easy to take stock of your drinking habits. The forestry industry is made up of men and women who work hard. Being tough is part of the job, and it keeps you going when the days are long and the weather and conditions are pretty darn lousy. But it also makes it difficult to ask for help. 50% of people with substance use disorders say that concern about what other people will say prevents them from asking for help. And even if you do recognize that you or someone you know has a problem, finding help is not easy. Unfortunately, it can be especially hard to find professional support in rural BC.

In order to address the problem, the BCFSC has developed a new set of Healthy Worker resources focussing on Alcohol Use that includes a short background piece, poster and crew talk, offering practical suggestions for creating a supportive worksite as well as links to some local agencies that can help. We've also included some additional Alcohol Use Support Resources you can access the end of this article.

It's worth it to stop and take an objective look at your drinking habits. Actually, keep track of how much alcohol you consume for a month and encourage your friends, co-workers and family to do the same. Check out the suggestions for how to create healthy drinking habits and what to do if you are having difficulty managing your alcohol consumption or know someone else who is. It is possible to step back from letting alcohol control you and your family, and keep those you care for safe.

Alcohol Use Support Resources:

Alcohol Serving Recommendations

Alcohol Self Assessment Tool:
Evaluate your risk level of alcohol consumption and plan for successful building of healthy alcohol consumption habits.

Identifying Alcohol Use Disorder:
Information about how to identify and help a colleague or employee struggling with alcohol use.

BC Mental Health and Addictions Services

Alcoholics Anonymous

Al Anon

BCFSC Healthy Worker Series:
Alcohol Use

Kid's Corner

Colouring Contest

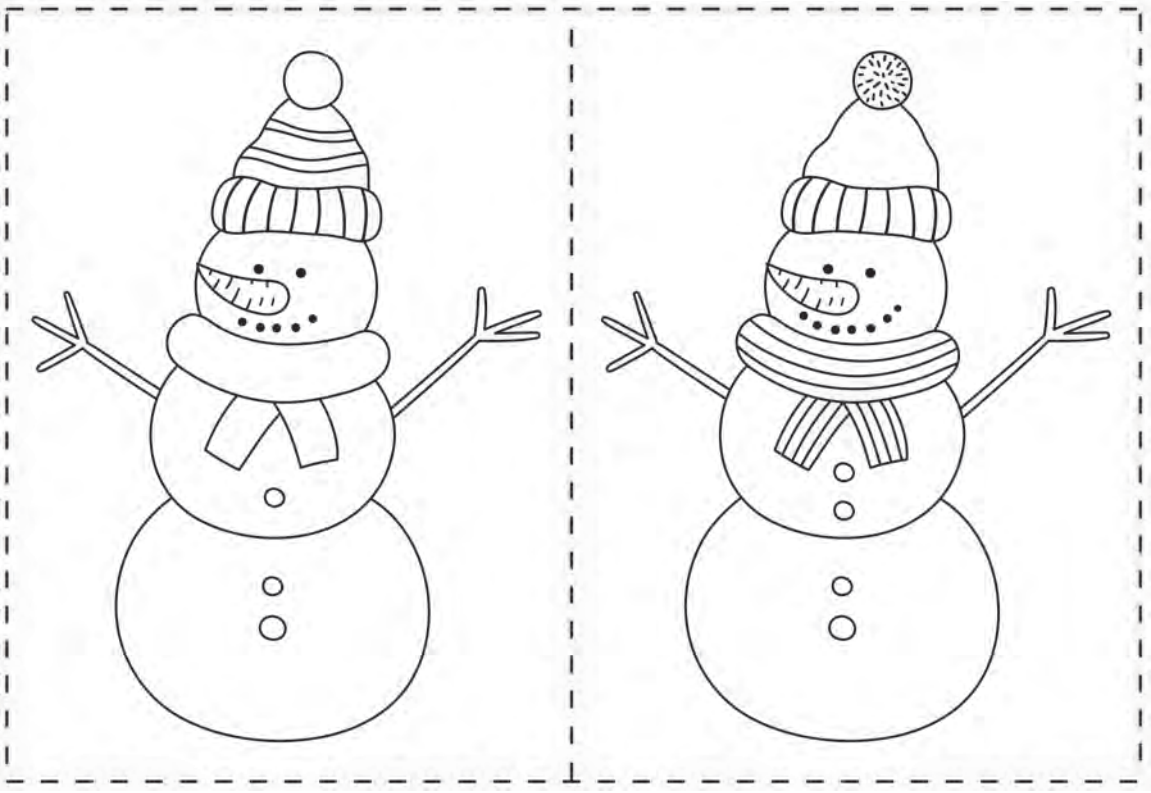
Thanks to everyone who entered our September colouring contest. **Congratulations to Janek, age 5**, whose name was picked from our random draw. Janek wins the DRIVEN Toy Logging Truck and we will be sending a special gift to everyone else just for entering!

For our winter issue, send us a picture of your artwork and enter to win our super cool DRIVEN Toy Logging Truck – it even has a crane arm and logs! Have your mom or dad, grandma or grandpa or guardian email us a photo of your artwork with your first name and age and we'll put your name into the draw.

How to Enter:

- Spot 5 differences and colour the snowmen or make your very own drawing.
- Have an adult take a picture of your artwork and email it with your name, age and your mom/dad's email address to editor@bcforestsafe.org
- Submit your entry by 4pm, Friday, February 4, 2022.
- Kids aged 3 – 12 are eligible.
- All entries will be put into a random draw to win the toy logging truck. The winner will be contacted via their parent's email address and the winning entry will be featured in the March 2022 issue of the Forest Safety News.

Spot 5 differences & color



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