

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@bcforestsafesafe.org or call 1-877-741-1060.

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*Rest In Peace
Pam Agnew*

20/10/1964 - 29/10/2021

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

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Happy Holidays

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

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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 backspur 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

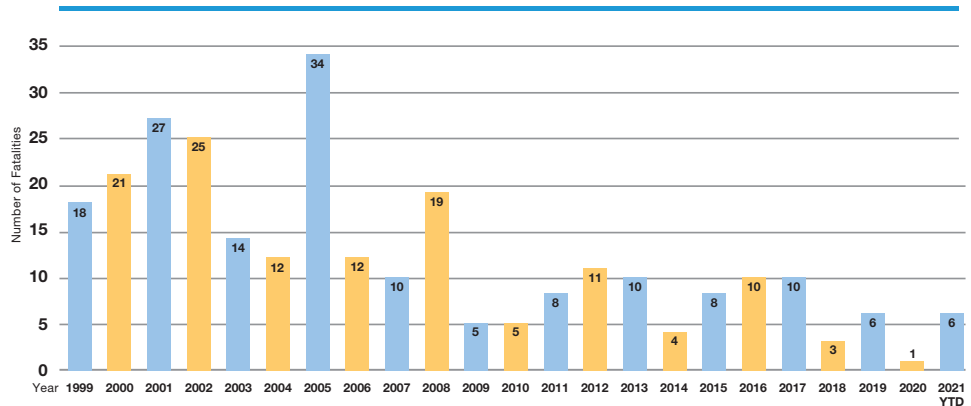
Core Activity: Integrated forest management

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.

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, Google 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. <u>Preparing Documents</u> | 1. <u>Adding Attachments</u> |
| 2. <u>Saving Progress</u> | 2. <u>Adding Paper Documents</u> |
| 3. <u>Adding a CU</u> | 3. <u>Adding Notes</u> |
| 4. <u>Missing Info</u> | 4. <u>Audit Submission</u> |
| 5. <u>Entering Split Years</u> | 5. <u>Multiple Day Progress</u> |

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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. 🌐



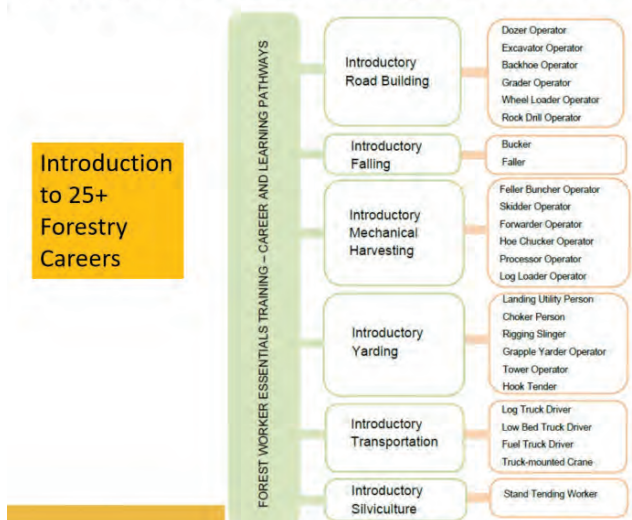
Forest Worker Essentials

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.

Forest Worker Essentials Program Overview



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. 📞



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@bcforestsafes.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 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



The Top 8 Reasons You Don't Wake Up Refreshed

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!



BCFSC & WorkSafeBC Webinar – Wednesday, November 24, 2021

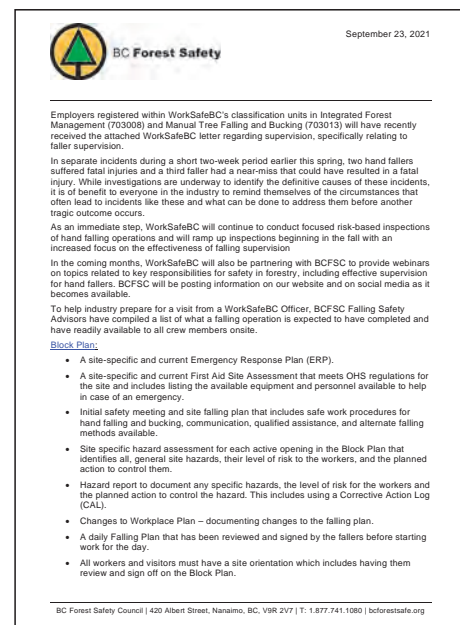
At the end of August, WorkSafeBC sent letters to employers registered in Integrated Forest Management (703008) and Manual Tree Falling and Bucking (703013) regarding supervision, more specifically relating to falling supervision. In response, the BC Forest Safety Council (BCFSC) sent information outlining 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. 📺



WorkSafeBC Letter



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@bcforestsafes.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 targeted 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

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).

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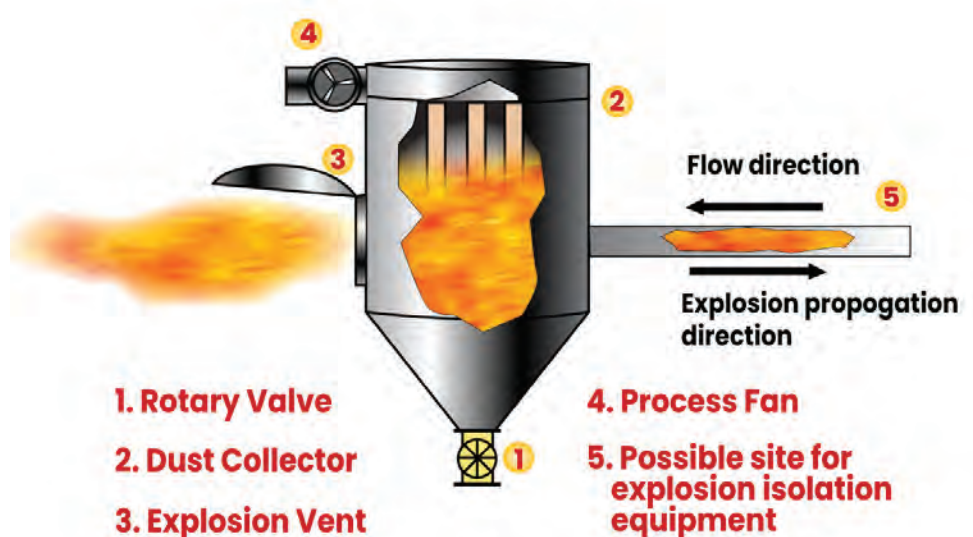
heated air and gaseous fire products (such as carbon dioxide) produce air pressure so extreme it can blow out walls and destroy structures. Deflagration also has the potential to create secondary explosions. This project is focussed on best practices aimed at isolating the potential for this kind of 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

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

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. 📢



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 🍷



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!



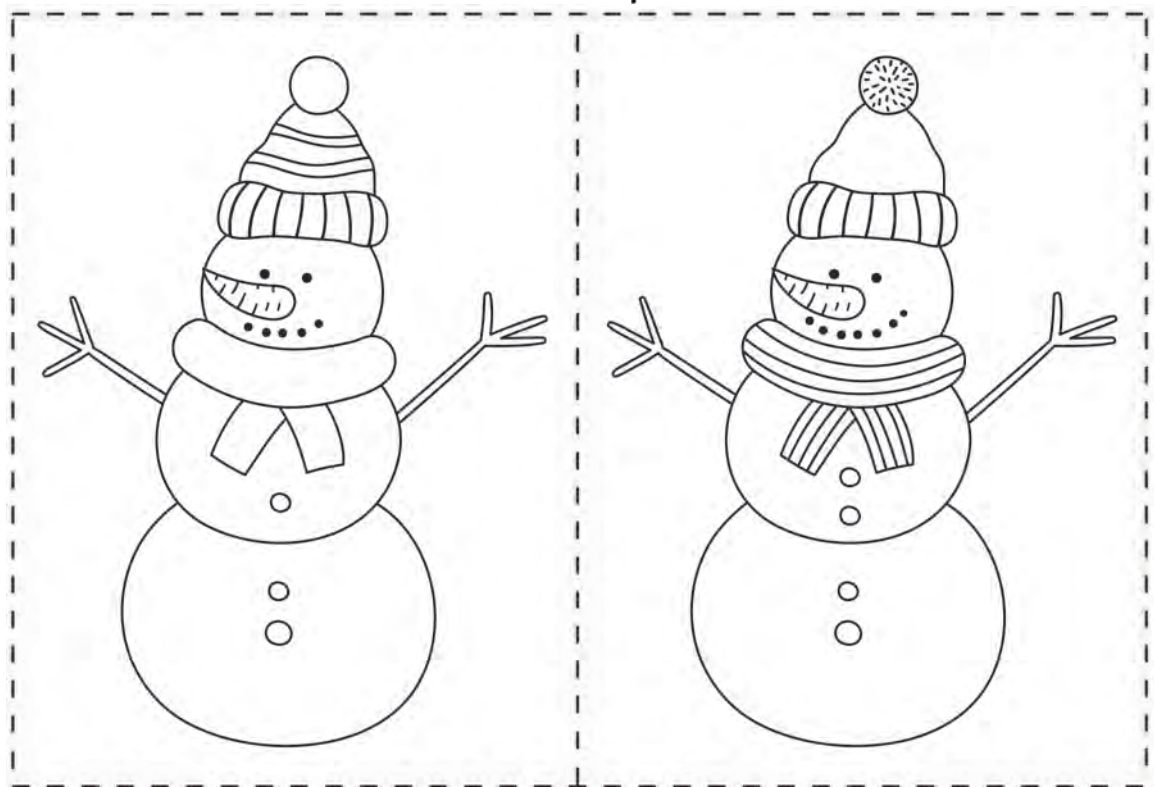
For our winter issue, send us a picture of your artwork and enter to win our super cool DRIVEN Toy Logging Truck – it even has a crane arm and logs! Have your mom or dad, grandma or grandpa or guardian email us a photo of your artwork with your first name and age and we'll put your name into the draw.



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@bcforestsafesafe.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



ABOUT Forest Safety News

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