



Fire Responsibilities

As a small tenure licensee what are your responsibilities during fire season?

First is the understanding of what is fire season. Fire season is not bound by calendar dates and should be recognized as any time a fire can spread outside the area of the fires intended use, fire season is generally understood as being when an area is snow free and weather conditions are conducive to fire spread. As a woodlot and Community Forest licensee our actions are dictated by mainly the *Wildfire Act* (WA) and its supporting *Wildfire Regulation* (WR).

If a community forest/woodlot licensee is conducting industrial operations, as defined by the WA and WR during fire season the *WR sec 4* requires the licensee to provide 24 hour contact information to the BC Wildfire Service by March 1st if the operations are planned to take place between the dates of March 1 and November 1 of the year. This notification is made to your regional Fire Centre and should also be cc'd to your local Fire Zone. An industrial activity should be considered as anything that can create a spark during the use of mechanized tools or explosive materials. So can going out to cut firewood be considered an industrial operation? Technically yes because it is an operation requiring a firewood permit.

When conducting operations during fire season the licensee should be aware that they are responsible to have firefighting hand tools on site sufficient to equip each person working. More importantly the licensee should be aware of whether the operations includes what are considered as high risk activities. High risk activities are defined in the *WR sec 1(3)* and generally are activities that are recognized as having a higher likelihood of starting a fire. High risk activities involve the use of engines, so using chain saws for spacing or all harvesting activities. These high risk activities have more restrictions as to when and how the activity is to take place. High risk activities have additional firefighting equipment requirements in that not only are firefighting hand tools necessary on site, but they must be supported by an adequate fire suppression system.

Under section 1(1) of the regulation: "fire suppression system" means a system for suppressing fire by delivering (a) water, (b) a suppressant, (c) a surfactant, or (d) any combination of the substances listed in paragraphs (a) to (c) and may include a water delivery system

"water delivery system" means a system that can

- (a) deliver a sufficient volume of water to effectively fight a fire of a reasonably foreseeable size, taking all factors into consideration, including the conditions of any area where the water delivery system may need to be used, and
- (b) deliver water to any place (i) at the site of an industrial activity, (ii) on the burn area or site of the high risk activity, or (iii) reasonably adjacent to the burn area or the site of a high risk activity;

Note that a water delivery system is a fire suppression system by definition, but that a fire suppression system need not necessarily include a water delivery system. It could be, for example, a system capable of delivering a chemical retardant or even a backhoe capable of covering a fire with soil (a suppressant) for rapid initial attack.

A fire suppression system can potentially take many shapes and forms as dictated by the type of high risk activity and the fire hazard. It may involve any of the application of: water alone, water mixed with a surfactant, a suppressant (e.g. soil, retardant, or foam), or a combination of all three. The system should be practical and reasonable for the activity being carried out, and capable of extinguishing or controlling the fire to limit fire spread and damage until additional resources arrive or the person is relieved by an official. If the fire suppression system involves the delivery of water, it should be nearby, operational and capable of being deployed in a length of time commensurate with current fire hazard.

The proximity and capacity of the fire suppression system should take into consideration the time to arrive to support the operation. As the fire danger rating increases, the available time to deploy a fire suppression system to support the suppression operation decreases. Larger more mobile systems may be located in a central area and serve several high risk activities, while smaller, less mobile fire suppression systems may be located in a strategic position or on the machine itself, for use by the operator.

Along with the fire hazard and values at risk, some other considerations for a fire suppression system may include:

- the ability to be activated quickly;
- the number of high risk activity sites to be serviced;
- the presence or absence of potential fire suppressant materials such as soil

While a fire suppression system could include, for example, a system capable of delivering a chemical retardant or even a backhoe capable of covering a fire with soil (a suppressant) for limited initial attack, for adequate suppression and control as the fire hazard increases, the fire suppression system at the site of the industrial activity should be supported up by a water delivery system that can be quickly deployed to the site to provide a full suppression response if required.

If water is in limited supply, a suppressant or surfactant may be added to the water in a water delivery system to improve its effectiveness. Use of a suppressant or surfactant reduces the rate or volume of water delivery expected from a water delivery system.

High risk activities also require the licensee to determine the Fire Danger Class for the area where the activity is taking place. The Fire Danger Class is determined through the daily (1200 PST) collection of weather data consisting of temperature, relative humidity, wind speed and direction and 24 hour rainfall, this data then computes the fire danger class as Low, Moderate, High or Extreme. Depending on the fire danger class, high risk activities have further restrictions placed on them. These restrictions include things such as the requirement of a firewatcher for specified time periods, initiate early shift requirements and ultimately can require that operations be shut down until such time as fire danger has been reduced.

The Fire Danger Class is to be determined daily during fire season and activities have to be conducted accordingly. Make sure as a licensee that you are using data that is produced by a weather station that is representative of your area of operations taking into account factors such as distance from the weather station, elevation, date of snowmelt, aspect, etc. Acquiring this data is considered as a cost of doing business and in most cases an existing weather station's data may be used. Contact your local fire zone office to determine what station to use and how to access the information. In some cases it may require the licensee to establish their own weather recording equipment. Keep in mind that rainfall has the greatest influence on the Fire Danger Class and weather recording equipment may be as simple as an on-site rain gauge with temperature, relative humidity and wind speed and direction obtained from a suitable existing weather station.

Should the worst case occur, what is expected of the licensee? The *WA sec 6(3)* states that if a person is carrying out an industrial activity and a fire starts at, or within 1 kilometer of, the site of the activity it is the person's responsibility to report the fire and immediately carry out fire control if safe to do so until such time as the fire is extinguished, fire control becomes unsafe or they are relieved in writing from fire control responsibilities. The *WR sec 13(1)(a)* further

requires that all the person's employees, fire suppression systems and heavy equipment within 30 kilometers by road of the fire be made available.

We are not firefighters, so other than ensuring the prescribed equipment is available and that our operations are conducted with due diligence in respect to fire, how are we to know how to fight a fire? In 1991 a 30 year old logger lost his life while fighting a fire on behalf of his employer and recommendations from the B.C. Coroner's investigation resulted in WorkSafeBC including in its *Occupational Health and Safety Regulation sec. 26.3.1* the requirement that workers expected to fight a forest fire as part of their duties be trained to do so, and to receive annual re-training. This, when coupled with the requirements to carry out fire control under the *Wildfire Act* and *Wildfire Regulation* has resulted in persons working in the forest receiving training in the form of the B.C. Wildfire Service's *S-100 Basic Fire Suppression and Safety* course supported by an annual refresher in order to meet WorkSafeBC standards.

How can we better protect our forest tenure? We can better prepare ourselves and our tenure for fire season. Did you burn debris piles last year go and ensure that no holdover fire exists? Have you assessed the fire hazard resulting from your prescribed or industrial activity as required under the WA sec. 7 and completed the necessary abatement? If something does happen are you prepared to respond in a safe and efficient manner?

As a woodlot licensee, and hopefully a member of a local association there are opportunities to enter into Protection Agreements (*WA sec 60*) with the government. A woodlot association can approach the B.C. Wildfire Service and see whether it would be feasible to have an agreement in place which could train and even equip members of the association under B.C. Wildfire Service direction. With an agreement in place, should a fire occur the association could contact the Wildfire Service to provide assistance on a fire and upon receiving approval be deployed to the fire as an employee with compensation made to the association and working under the B.C. Wildfire Service insurances and WorkSafeBC coverage. Protection Agreements have been in place for years with many entities such as community associations, Cattleman's associations, etc... and have enjoyed much success.

As a final note, listed below are links to the various Acts and Regulations discussed. The document entitled 'Update on Recent Wildfire Regulation Amendments and New Interpretive Bulletin' is an excellent read and will remove many of the 'gray' areas created when reading the legislation.

B.C. Wildfire Act

http://www.bclaws.ca/Recon/document/ID/freeside/00_04031_01

B.C. Wildfire Regulation

http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/11_38_2005#section1

Update on Recent Wildfire Regulation Amendments and New Interpretive Bulletin (June 23, 2011)

https://www.for.gov.bc.ca/bcts/bulletins/interpretive_wildfirereg.pdf