

Interpretive Bulletin on the Application of the Wildfire Regulation for the Forest Industry

Purpose and Scope:

This bulletin is intended to provide guidance to forest industry staff as to the intended application of certain provisions of the Wildfire Regulation. This guidance is not intended to provide legal advice as to the application of legislation.

Background

Two of the cornerstones of the *Wildfire Act* and the Wildfire Regulation are for it to be results-based and to incorporate the concept of professional reliance.

The drafting of the Wildfire Regulation focused on being results-based, rather than the prescriptive provisions under the former *Forest Practices Code of British Columbia Act* (the FPC) and regulations. However, this may result in vagaries of application and interpretation. The FPC provisions were generally based on objective tests (E.G. specific numbers of fire tools) which has been changed under the Wildfire Regulation to a subjective test (E.G. sufficient fire fighting tools). It is intended that this bulletin will bring clarity to some of these issues.

Generally, in a results-based environment, meeting requirements of the regulation such as provisions for fire suppression systems, sufficient fire tools and fire break requirements are examined in detail during an inspection or a fire investigation.

The challenge comes for those ‘persons’ who are responsible for complying with the results-based provisions in the regulation, for example, in determining when they have ‘sufficient water delivery system’ ‘to effectively fight a fire of reasonably foreseeable size’ before any event happens. A person carrying out an industrial activity may well rely on past practices or on the advice of an expert to assist them in determining whether they have ‘sufficient fire fighting tools’ and “water delivery system’ in a particular situation/condition.

1. For all industrial activities; how to determine if tools are adequate?

Under section 5 of the Wildfire Regulation, “sufficient fire tools” are required “if there is a risk of a fire starting and spreading” for a person who carries out an industrial activity.

Definition:

“sufficient fire fighting tools” – means “hand tools in a combination and type and of an appropriate number to properly equip each person who works at the site with a minimum of one fire fighting hand tool, including but not limited to shovels, axes, pulaskis, hand tank pumps, and fire extinguishers” (Reference: Wildfire Regulation section 1.)

One procedure for assessing the adequacy of fire fighting tools could be to start by counting the number of workers on site, and the number of hand tools and water delivery systems which are on site. Each worker should have access to a tool with which to carry out fire suppression work. One can expect that a person working at the end of nozzle would not require a hand tool, whereas a person building hand guard would be expected to have a hand tool, such as a shovel, mattock or Pulaski, suitable for the type of conditions in which the fire has occurred or could be reasonably expected on the industrial operation. Other tools such as a McLeod Tool, hazel hoes or other effective fire fighting tools can be used instead of a mattock or pulaski, with the intent being to use the tool that is most appropriate for the type of fire suppression expected.

It is intended that the number of tools required would be dictated by the number of workers working on site. It is **not** intended that each site must have adequate tools to equip each and every person who may subsequently come on site to undertake fire control actions, since additional resources should come with their own tools.

With the new Wildfire Regulation requirement for fire tools, one of the first considerations for an assessment is to set your mind to two things “At all times while there is a risk of a 1. fire starting and 2. spreading ...”; remember **both** conditions must be met. If there is no risk of a fire starting, for example, snow remains on the block during the time the industrial activity is carried out, there would be no need to have fire tools on-site. The moment there is a reasonable risk of a fire starting and spreading then there is a requirement for tools on-site.

2. For high risk activities; how to determine if the fire suppression system is adequate?

The “fire suppression system” obligations do not apply to all industrial activities. The obligation applies to “high risk activities” as defined in the Wildfire Regulation and are a subset of “industrial activities”. In addition to the “sufficient fire tool” requirements, high risk activities carry additional obligations under section 6. One of these requirements is for an “adequate fire suppression system”.

Definition:

“Fire suppression system” – means a system for suppressing fire by delivering water, a suppressant or a surfactant. (definition from section 1 of the Wildfire Regulation)

To add clarity as to what a “fire suppression system” could be composed of, the following is a definition of a “water delivery system”

Definition:

- “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.
- (definition from section 1 of the Wildfire Regulation)

A suppressant or surfactant may be added into the water in a water delivery system to help maximize the use of the water if it is in a limited supply.

It is not expected that a person would have to maintain a fire suppression system to address every eventuality; rather, it is expected that the system would be adequate to address a fire starting from the activity being carried out giving due consideration to the fire environment at hand (weather, fuels, topography).

The precursor to all of the discussion is that the requirements apply when there is “a risk of a fire starting and spreading”. A reasonable risk of a fire starting and spreading should be applied based upon available information, for example using the Canadian Forest Fire Danger Rating System (CFFDRS), probability of ignition models or established local fire history for that industrial activity.

The intent of this definition is to move away from a “prescriptive” regime where the adequate water delivery system was one centred on a proprietary brand of pump; to a results-based regime where a person’s water delivery system is able to suppress a fire of reasonable size that starts as a result of the activity giving due consideration to the fire environment (weather, fuels, topography).

When assessing whether a water delivery system is adequate, look for results rather than process. For example, if a gravity-feed system or a helicopter bucket will provide enough water to effectively extinguish any fire expected on the entire site of operation, then the system would be adequate. In some situations, a backpack water tank may be adequate for any fire expected. An adequate water delivery system could also mean the pump system that was historically prescribed in the previous FPC regulation. The change under the *Wildfire Act* from the previous prescriptive FPC regime is that those carrying out industrial activities can tailor the water delivery system to suit the expected fire environment for their site.

3. How would a person carrying out high risk activities, obtain representative weather data to determine the Fire Danger Class?

Under section 6 of the Wildfire Regulation, those conducting high risk activities are required to use representative weather data for the area to determine the Fire Danger Class for their location. It is up to the person carrying out the high risk activity to determine what the representative weather station is for the area. The source of this data could be internal weather stations, from the Ministry of Forests, or from other third parties.

The Ministry of Forests' public website (<http://www.for.gov.bc.ca/protect/>) will continue to display current and forecasted Fire Danger Class for every Ministry weather station. This information is found under the heading of "Detailed Danger Class Report". Accurate locations and elevations of stations are to be found under the "General Weather & Lightning Information". More detailed information on fire weather codes and indices of the Canadian Forest Fire Danger Rating System, along with other weather information and fire weather forecast details are available thru subscription to services. Important reference material for this has been written by Turner and Lawson (1978)¹. Fire weather information may be applicable to or adapted to the location of the high risk activity and persons using this data would have to adapt it to their specific location.

4. How does one assess whether a fuel break is adequate?

"Fuel Break" – means

- (a) a barrier or change in fuel type or condition, or
 - (b) a strip of land that has been modified or cleared to prevent fire spread
- (Reference: Wildfire Regulation section 1.)

First, it is important to remember that a fuel break does not necessarily mean a bladed guard. Anything – natural, engineered or constructed that modifies or removes the fuel so that there is no reasonable chance of a fire spreading would be acceptable. For example, snow, water, natural bare rock or high fuel moisture could be an adequate fuel break. A fuel break may also be created using a sprinkler system that increases the moisture content of fuel above its ignition point, or it could be that the complete removal of all fuel to mineral soil would also constitute an adequate fuel break. When constructing a fuel break, due consideration should be given to the fire environment at hand (weather, fuels, topography).

It is also important to remember that in a results-based regime, we would not commonly assess the sufficiency of a fuel break until after fire escapes beyond the fuel break, as part of an incident inspection or investigation. It is also understood that there are conditions

¹ Turner, J.A.; Lawson, B.D. 1978. Weather in the Canadian Forest Fire Danger Rating System. A user guide to national standards and practices. Environment Canada, Pacific Forest Research Centre, Victoria, BC. BC-X-177.

under which a fuel break could not completely prevent a fire from spreading. The fact that a fire escapes does not automatically infer non-compliance with fuel break requirements.

The requirements for a fuel break under section 7 of the regulation for 'wood processing' or "wood sorting" are intended to capture processing that is done on sites such as a dry land sort or mill yard. Section 7 does not apply to log processing or sorting activities that are conducted as part of harvesting activities on a cut block. Also note that the requirement under section 8(f) for a fuel break for an engine over 7.5kw that is "stationary or semi-permanent" does not apply to log processing activities that are conducted as part of harvesting activities on a cut block where the equipment could be considered 'stationary'.

There are situations where it is obvious that the existing fuel break or the lack thereof would not be sufficient to prevent a fire from spreading beyond the area given reasonably expected fire conditions.

5. Log Forwarding

"**Log forwarding**" is included as a high risk activity, and should be interpreted as the use of a self-propelled machine, usually self-loading, designed to transport trees or parts of trees on a cut block. The definition of log forwarding in the regulation specifically excludes a logging truck on a road. Therefore, a self-loading logging truck on a road or landing would not be considered log forwarding. If however, the self-loading logging truck drives off the road out onto a setting, it could be included as log forwarding. Note that "skidding logs" is not included in "log forwarding", but is included as a separate part in the definition of high risk activity.

6. Machinery with tracks, chains or studs

The Wildfire Regulation defines a number of items as "high risk" activities. It states in subsection (p) that "operating a vehicle with metal tracks, chains or studs is considered a high risk activity", but outlines exceptions to this under subsections p(i) and p(ii). A log loader operating at roadside is considered to fall within the exceptions outlined in p(ii). A loader operating at roadside includes; loaders that may be positioned over the roadside ditch, on debris, slash or operating on undisturbed forest floor material adjacent to the road. Any movements of the loader, such as from log deck to log deck, or repositioning between loading trucks would not be considered a high risk activity. Under the former FPC FFPS regulation, log loading was not considered a high risk activity (A or B).

Where a person decides to operate a tracked machine loading logs off the road in slash, there is an obligation for the person to be duly diligent regarding s.6 of the *Wildfire Act*, which specifies that a person who carries out an industrial activity must do so; "at a time,

and in a manner” that can reasonably be expected to prevent fires from starting because of the industrial activity.

7. Requirement to Make Resources Available

For the purpose of section 13 of the regulation, it is important to note that the person is only required to make resources (manpower, fire fighting tools and heavy equipment) available if the resources are within 30 km by road. Section 13 of the Wildfire Regulation specifically excludes employees, contactors or agents working at a non-portable timber processing facility (pulp or saw mill), or workers in a clerical or administrative capacity from this requirement.

The intention of this provision is not to impact stationary processing facilities (mining operations or otherwise). Barge camps, the barge and its employees are not resources that the person must make available for fire control activity. If these facilities, other employees or equipment are required, there are specific sections of the *Wildfire Act* (s.16) under which an official may issue a requisition order that requires a person to supply any facilities, equipment or employee for fire control.

8. Fire Hazard Assessment

Section 11 of the Wildfire Regulation was amended on April 15, 2005 to bring clarity to which type of industrial or prescribed activity must carry out a fire hazard assessment. The industrial activity or prescribed activity (waste disposal site, dry land sort, or camp) must create or increase a fire hazard or be likely to do so. It should be noted that activities such as road maintenance (grading a gravel road), grazing, planting, surveys, block layout, and conducting inspections will not be required to carryout a fire hazard assessment, even though the activity itself is defined as an industrial activity, because the activity does not create or increase the fire hazard.

The content of a Fire Hazard Assessment under the *Wildfire Act* could be the same as that used previously under the former Forest Fire Prevention and Suppression Regulation (s.31), using the form contained in Schedule 7 of that regulation. In addition, an assessment of the associated risk of a fire starting or spreading is also required. Forest Professionals may develop their own method of fire hazard assessment, but it must address the both the fuel hazard and the associated risk of fire starting or spreading. If an assessment identifies a hazard, it must be abated.

Protection Branch has developed a guide line dealing with fire hazard assessment (including the assessment of ‘fuel hazard’ and its associated risk of a fire starting or spreading) and abatement. This guild line will be used by the Protection Branch in determining if an area requires hazard abatement.

9. Documentation

A clear description of the Fire Suppression System, Water Delivery System, the number of tools and number of people, the types of machinery on site, fuel breaks, site conditions, Fire Danger Class, etc should be recorded. This would assist the person conducting the industrial activity in demonstrating to Ministry of Forests and Range staff how they conform to the requirements of the *Wildfire Act*.



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**MINISTRY OF FORESTS, PROTECTION BRANCH
WILDFIRE REGULATION SECTION 25**


FIRE WATCHER EXEMPTION

Pursuant to section 25(1)(a) of the *Wildfire Regulation*, all persons operating under a Community forest agreement, Forest licence, Timber licence, Timber sale licence, Tree farm licence or Woodlot licence conducting high risk activities in the Province of British Columbia, are hereby exempt from the requirements to maintain a fire watcher after work for a minimum of 2 hours as per the *Wildfire Regulation* section 6(2)(a) and Schedule 3.

This exemption is granted subject to the following conditions:

- (1) If relying on this exemption, given a Danger Class IV or V the person must:
 - (a) maintain a fire watcher after work in the circumstances specified in Schedule 3 of the *Wildfire Regulation* for a minimum of 1 hour, if the recorded wind speed averaged over a 10 minute period during the watch is less than 20 km/hr (a) and
 - (b) maintain a fire watcher after work in the circumstances specified in Schedule 3 of the *Wildfire Regulation* for a minimum of 2 hours, if the recorded wind speed averaged over a 10 minute period is 20 km/hr or greater during the 1 hour period specified in (a).
- (2) This exemption is effective April 1, 2006 until March 31, 2010 unless otherwise rescinded.

Signed: _____


Jodi Beck
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[Official]

Date: June 19, 2006