

# WCB CONSULTATION

Submission for Regulatory Amendments  
Part 8, Part 20 and Part 21

July 2019




## Authority

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This document is respectfully submitted on behalf of the Executive Officers of the BC Federation of Labour and represents the views of more than 500,000 affiliated members across the province of British Columbia.



**W. Laird Cronk**  
President

1510-19sub regulatory amendments parts 8 20 21/km 

# Regulatory amendments

- Part 8: Personal Protective Clothing and Equipment: Section 8.24, High Visibility and Distinguishing Apparel
- Part 20: Construction, Excavation and Demolition: Section 20.47 Concrete Pumping
- Part 21: Blasting Operations

## Introduction

The BC Federation of Labour (“Federation,” “BCFED”) appreciates the opportunity to provide our submission with respect to the proposed amendments to:

- Part 8: Personal Protective Clothing and Equipment: Section 8.24, High Visibility and Distinguishing Apparel
- Part 20: Construction, Excavation and Demolition: Section 20.47 Concrete Pumping; and
- Part 21: Blasting Operations

The Federation represents more than 500,000 members of our affiliated unions, from more than 1,100 locals, working in every aspect of the BC economy. The Federation is recognized by the Workers’ Compensation Board (WCB) and the government as a major stakeholder in advocating for the health and safety of all workers in BC and full compensation for injured workers and their surviving dependents.

This submission was prepared in consultation with our affiliates and other worker advocates.

## Part 8: Personal protective clothing and equipment

### Section 8.24 High visibility and distinguishing apparel

Section 8.24 of the Occupational Health and Safety Regulations (OHSR) sets out the requirements for a worker to wear high visibility apparel when they are exposed to the hazards of vehicles or mobile equipment.

The current requirements follow the WCB Standard Personal Protective Equipment Standard 2-1997, High Visibility Garment. This standard was developed before the Canadian Standards Association (CSA) CSA Z96 was issued.

The proposed amendments in Section 8.24 (1) and (2) are intended to adopt the high visibility requirements of CSA Z97-15.

The WCB proposed amendment includes reference to both vehicles and mobile equipment to avoid confusion if mobile equipment is a subset classification of vehicle.

The BCFED agrees with this clarification as many workers are working in the vicinity of mobile equipment.

In Section 8.24 (1) speeds in excess of 30 kilometres per hour remain unchanged as the determination for the use of Class 2 or Class 3 apparel according to CSA Z96-15.

Section 8.24 (2) establishes 30 kilometres as the upper limit for determining the use of Class 1 apparel.

The WCB has maintained the current 30-kilometre limit and not adopted the 40-kilometre requirement from CSA Z96-15.

The BCFED contends that the reliance on the single criteria of speed to determine the appropriate high visibility apparel will not provide the best protection for workers from vehicles and mobile equipment. The BCFED agrees with the requirement of the CSA standard that a risk assessment must be done. A risk assessment will consider factors other than vehicle speed that must be analysed in determining the appropriate high visibility apparel.

The CSA Z96-15 recommends the following to be considered in conducting a risk assessment:

*The CSA Standard recommends that a hazard assessment be carried out on each job site to evaluate the workplace or work site for known or potential hazards a worker can encounter while performing a job or task. This assessment helps*

*determine the risk to workers of being hit by moving vehicles and the environmental conditions under which work is performed.*

*When doing a hazard assessment where HVSA might be required, be sure to consider:*

- The type and nature of the work being carried out - including the tasks of both the HVSA wearer and any drivers.*
- Whether workers will be exposed to heat and/or flames (if so, flame-resistant HVSA would be required).*
- Work conditions, such as indoor or outdoor work, temperature, work rates, traffic flow, traffic volume, visibility, etc.*
- The workplace environment and the background workers must be seen in (e.g., is the visual area behind the workers simple, complex, urban, rural, highway, filled with equipment, cluttered).*
- How long the worker is exposed to various traffic hazards, including traffic speeds.*
- Lighting conditions and how the natural light might be affected by changing weather (sunlight, overcast sky, fog, rain, or snow).*
- Factors that affect warning distances and times, such as the volume of traffic, the size of vehicles, their potential speeds, the ability to stop quickly, and surface conditions.*
- If there are any engineering and administrative hazard controls already in place (e.g., barriers that separate the workers from traffic).*
- Any distractions that could draw workers attention away from hazards.*
- The sightlines of vehicle operators, especially when vehicles are operated in reverse.*
- If certain jobs, or the function being done, need to be "visually" identifiable from other workers in the area.*

*Once a hazard assessment is complete, the employer can select appropriate controls. The first line of defence for workers' safety would be to control the design of the workplace and reduce the exposure of workers to moving vehicles (e.g., through the use of physical barriers and other engineering and administrative controls).*

*Using high-visibility apparel would be the last line of defence against accidents by providing more warning to vehicle operators that workers are on foot in the area.<sup>1</sup>*

A further reason for not using speed to determine appropriate high visibility apparel is the fact that any speed puts a worker at risk of injury or death.

The 1999, US Department of Transportation, National Highway Traffic Safety Administration literature review on vehicle travel speeds and pedestrian injuries found:

*The idea that the faster a striking vehicle is traveling, the more damage is done to a struck pedestrian, is almost too obvious to require proof. Yet the relationship has been documented in a number of studies. Pasanen (1992) reviewed three studies relating collision speeds and pedestrian injury severity, finding their results quite consistent and that the probability of pedestrian death reached nearly 100% for speeds over 80 km/h (50 mph). **Modeling the data from Ashton (1982), Pasanen estimated that about 5 percent of pedestrians would die when struck by a vehicle traveling 20 mph. The pedestrian fatality percentage would rise to about 40 percent for vehicles traveling 30 mph, (emphasis) about 80 percent for vehicles traveling 40 mph, and nearly 100 percent for speeds over 50 mph.***

*Numbers comparable to these are cited in a number of other references. For example, in the UK Department of Transport Traffic Advisory Leaflet 7/93 (TAU,*

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<sup>1</sup> [https://www.ccohs.ca/oshanswers/prevention/ppe/high\\_visibility.html](https://www.ccohs.ca/oshanswers/prevention/ppe/high_visibility.html)

*1993), figures quoted are, for 20 mph impact speeds: 5 percent death, 65 percent injured, and 30 percent uninjured; for 30 mph impact speeds: 45 percent death, 50 percent injured, and 5 percent uninjured; for 40 mph impact speeds: 85 percent death and 15 percent injured. (emphasis)<sup>2</sup>*

Workers, like pedestrians have a large risk of severe injury when colliding with a motor vehicle. The difference in mass is huge and the collision energy is mainly absorbed by the lighter “object.” In addition, workers are completely unprotected: no iron framework, no seatbelts, and no airbags to absorb part of the energy.<sup>3</sup>

The BCFED disagrees that the proposed amendments go far enough to provide the most effective protection for workers who work in and around vehicles and mobile equipment.

To prevent fatalities and injuries for the thousands of workers in BC who are exposed to vehicles or mobile equipment, the BCFED strongly recommends the proposed changes in Section 8.24 (1)(2) are amended to include the requirement for employers to conduct a hazard identification and risk assessment process as recommended by CSA Z96-15.

The BCFED recommends the requirements of Section 8.24 be updated at such time as CSA Z96-15 is reviewed.

## Part 20: Construction, excavation and demolition

### Section 20.47 concrete pumping equipment inspection

The WCB’s explanatory notes propose to amend Section 20.47 to remove the requirement for a professional engineer to conduct the regular inspections, either frequent or periodic as required by the CSA Z151-09. The regulation currently defines a “qualified person” as a

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<sup>2</sup> <https://one.nhtsa.gov/people/injury/research/pub/hs809012.html>

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[https://ec.europa.eu/transport/road\\_safety/specialist/knowledge/speed/speed\\_is\\_a\\_central\\_issue\\_in\\_road\\_safety/speed\\_and\\_the\\_injury\\_risk\\_for\\_different\\_speed\\_levels\\_en](https://ec.europa.eu/transport/road_safety/specialist/knowledge/speed/speed_is_a_central_issue_in_road_safety/speed_and_the_injury_risk_for_different_speed_levels_en)

professional engineer. This overrides the CSA Z151-09 requirement for a frequent inspection to be done by a designated person and periodic inspections to be done by a qualified person. Neither of these designations refer to a professional engineer.

According to the WCB the current requirement for a professional engineer to do inspections of concrete pumps and placing booms falls outside of engineering practice. There was a discussion in the pre-consultation meeting regarding the need to separate structural and mechanical inspections. A structural engineer cannot stamp a mechanical inspection. But the proposed amendment of subsection (3) includes both structural and mechanical inspections.

*“Without limiting subsection (2), an inspection under that subsection must include an inspection of the structural, mechanical and control system component of the concrete pump and placing boom.”*

And to further add confusion, the WCB proposes to amend Subsection (4) to require a professional engineer to certify that the concrete pump and the placing boom are good to be used after the inspections under subsection (2) and subsection (3). In the explanatory notes, the WCB commits to placing the requirements for the certification into the guideline.

The BCFED is generally in support of the proposed amendments for Section 20.47 Sections 2,3 and 4.

## Part 21: Blasting operations

The purpose of the proposed amendments to Part 21 is to:

- address changes in blasting technology and associated work practices;
- ensure consistency with federal legislation (*Explosives Act*, *Explosives Regulations*, *Transportation of Dangerous Goods Act* and *Transportation of Dangerous Goods Regulations*);
- clarify requirements, and
- simplify regulatory language.



The BCFED is generally in support of the proposed amendments and will respond only to those sections where we have concerns and proposals for further amendments.

## Division 1 General requirements

### Section 21.2.1

Planning and conducting blasting operations is a new section that sets out the requirements for ensuring that all activities of the blasting operation are pre-planned. A written plan must be completed before the work begins and the plan must include all items listed in sub-section 21.2.1 (3). Any change in the workplace circumstances such as work activities and conditions that may pose a risk to person or property and were not previously documented, require the original plan to be amended. The amendments must be documented as soon as is practicable.

The BCFED supports these proposed amendments and is pleased to note the amendment (f) ensuring the plan is readily available to workers.

### Section 21.4 Blasting log

In Section 21.4(1) the WCB proposes to remove the term “inspection” and replace with “examination” to be consistent with Division 11- Returning to the Blast Site, Section 21.71 (a) After the Blast.

The BCFED strongly disagrees with dropping the reference to inspection in Section 21.4(1) and in Section 21.71(a). The requirement to conduct inspections is used throughout the Occupational Health and Safety Regulation and is required by its own regulation in Part 3 Rights and Responsibilities, Section 3.5, General Requirement;

*Every employer must ensure that regular inspections are made of all workplaces, including buildings, structures, grounds, excavations, tools, equipment, machinery, and work methods and practices, at intervals that will prevent the development of unsafe working conditions.*<sup>4</sup>

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<sup>4</sup> <https://www.worksafebc.com/en/law-policy/occupational-health-safety/occupational-health-safety-regulation>

The word inspection is more commonly used in the language of health and safety than the word examination. The WCB has failed in this instance, to simplify regulatory language, one of its stated purposes in the review of Part 21.

The BCFED recommends Sections 21.4 (1) and Section 21.70 (a) be amended to use the word inspection.

## Division 2- Certification of blasters

### Section 21.8 -21.8.1 qualifications

Section 21.8-21.8.1 sets out the requirements for suitable candidates for a blaster's certificate. The BCFED is pleased that the current requirements were amended to remove criteria (a) satisfactory knowledge of English and criteria (c) be physically capable. These criteria, it was pointed out in the pre-consultation by labour, could be considered arbitrary and discriminatory under the *BC Human Rights Code*.

The BCFED supports Section 21.8.1 which provides for eight hours of annual education for the blaster until the expiry date of the certificate. The WCB has not created a standard for the continuing education, saying in the explanatory notes that the education is a combination of professional development opportunities, including sessions offered by employers and manufacturers, conferences and on-line courses. There is not standard requirement and the education is self-directed.

To provide consistency, ensure high quality and ongoing improvements, the BCFED recommends an amendment to implement a standardized format for the ongoing professional development for blasters. Currently the European Union, working with the European Federation of Explosive Engineers is developing a pan-European competency certificate for blasters in all European countries.<sup>5</sup>

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<sup>5</sup> <http://www.shotfirer.eu/>

## Section 21.31(a)(b) firefighting equipment

Section 21.31 (b) requires fire extinguishers to be readily available for use. The Federal Explosives Regulation Part 9 requires fire extinguishers to be readily accessible;

*(8) The carrier must ensure that the vehicle that contains explosives is equipped with two fire extinguishers that have a rating of at least 4-A :40-B:C and are easily accessible.<sup>6</sup>*

The BCFED is concerned the WCB has neglected to align Section 21.31(a) with the Federal Explosives Regulation using the word “available” rather than “accessible.”

There is a crucial difference between the two words and particularly given that if fire extinguishers are needed, workers are likely to be in danger.

*“**Accessible** implies that it is not only **available** but **in a place where it can be accessed**. Something might be **available** but not easily retrieved; **accessibility** implies some ease of retrieval. “Avail” as a noun means “beneficial effect; advantage, benefit, profit.”<sup>7</sup>*

The proposed amendments do not contemplate the placement of the fire extinguishers, so they are easily accessible. They should be easily accessible for both the driver/operator of the vehicle and for a person standing outside the vehicle who can assist if the driver is incapacitated and unable to operate the extinguisher.

Mounting one of the fire extinguishers outside of the vehicle transporting explosives would provide for rescue from a person nearby. The proposed amendments for Part 16, Section 16.38 Rollover and Fire, applicable to certain mobile equipment, consider an external rescue in Subsection 2 (b) “attached to the outside of the cab, a fire extinguisher in good working order ....”

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<sup>6</sup> <https://laws-lois.justice.gc.ca/eng/regulations/SOR-2013-211/page-25.html#docCont>

<sup>7</sup> <https://english.stackexchange.com/questions/190319/context-on-using-available-vs-accessible/196305#196305>

The BCFED recommends the proposed amendments be revised to use the term “easily accessible” and to include options for placement of the fire extinguishers including outside the cab in order to provide the best protection for the worker.

## Section 21.35 overnight parking

The BCFED recommends Section 21.35 (1)(2) be further amended to use the same requirements as the Explosives Regulation. These requirements are more prescriptive and most importantly require that a vehicle transporting explosives if parked overnight must be attended. From Part 9, Section 200, Transportation of Explosives:

### **Overnight Parking**

- *(1) If a vehicle that contains explosives is to be parked overnight, the driver must park at a place where there is no open flame, match or any other thing that could increase the likelihood of an ignition. The distance between the parking place and any dwelling, any place where flammable substances (for example, gasoline pumps, propane tanks or above-ground storage tanks for flammable liquid or flammable gas) are stored and any area where people are likely to gather must be great enough to eliminate any possibility of harm to people and property in case of an ignition.*
- **Vehicle attended**
  - (2) The driver must ensure that the parked vehicle is attended.*

## Division 14 – Close proximity blasting

The BCFED supports the new Division 14 Close Proximity Blasting except for Section 21.91, Written plan, Subsection (a).

A written plan must

- (a) *“Be developed by a blasting professional with at least 5 years of experience in blasting operations in an urban environment....”*

There is no definition of blasting professional in Section 21.1 Definitions and we are curious to know who is being assigned this designation. Is it the certified blaster, the employer, the owner?

The BCFED recommends the term “blasting professional” be clarified in Section 21.91 (a) to provide consistency and clarity.

A final comment on the harmonization of the WCB regulations with other standards. During the pre-consultation period, participants in the process are not provided with access to the standards and it is very difficult to determine if these standards are superior or less than the WCB regulations.

The process of harmonization seems at times arbitrary and confusing. The BCFED has always been concerned that standards adopted by the WCB are not easily accessible for employers and prevention officers and even less for workers. For example, CSA standards must be purchased.

The BCFED recommends the Board of Directors of the WCB consider using the current surplus to implement a program to provide free and easy access to standards referred to in the WCB regulations.

## Conclusion

The BCFED values the opportunity to provide a submission on these proposed regulatory amendments. We recommend the Board of Directors carefully review the above submission, prior to making any final decisions on the proposed amendments.