

## Overview of proposed amendments to

### Part 6: Substance Specific Requirements

#### Section 6.33, Definitions

#### Section 6.36, Control procedures

The primary intent of the proposed amendments is to make mandatory in all workplaces the use of safety-engineered hollow-bore needles to access a vein or artery for the purpose of collecting blood or caring for or treating a person. The proposal also provides for the replacement of safety-engineered needles with needleless devices, when it is practical and safe to do so, and requires the implementation of safe work procedures and practices.

Employers will still have to comply with existing provisions of the *Occupational Health and Safety Regulation*, notably, they have to control for any harmful exposures to workers by implementing appropriate engineering controls and work practice controls as per section 6.36(1). The concept of neutral space is a work practice control and an example is provided in proposed Guideline 6.36(1).

International studies using safety-engineered hollow-bore needle devices demonstrated a reduction in injuries from 23 to 100 per cent with an average of 71 per cent. Needleless devices are shown to be 79 per cent more effective in reducing needlestick injuries relating to the use of intravenous hollow-bore needles. This proposed amendment would address the greatest risk of bloodborne pathogen exposure for workers caused by conventional hollow-bore needles. In BC, all time lost needlestick claims that led to serious diseases during 1995-2004 related to hollow-bore needles. In the US, 85% of needlestick injuries that led to disease over the same period involved hollow-bore needles that accessed a vein or artery.

The proposed amendments also place emphasis on the use of both engineering controls and work practice controls, and a priority on eliminating, before minimizing, the potential for exposure to a bloodborne pathogen or other biohazardous material.

A definition of “safety-engineered needle” is proposed for clarity.

## PART 6: SUBSTANCE SPECIFIC REQUIREMENTS

### BIOHAZARDOUS MATERIALS

<b>Definitions</b>	<b>6.33</b>	In sections 6.33 to 6.41:
<i>"biohazardous material"</i>		means a pathogenic organism, including a bloodborne pathogen, which due to its known or reasonably believed ability to cause disease in humans, would be classified as Risk Group II, III or IV as defined by the Medical Research Council of Canada, or any material contaminated with such an organism;
<i>"occupational exposure"</i>		means reasonably anticipated, harmful contact with blood or other potentially biohazardous material that may result from the performance of a worker's <del>duties</del> <b>duties</b> ;
<i>"safety-engineered needle"</i>		<b>includes a self-sheathing needle device and a retractable needle system.</b>
<b>Exposure control plan</b>	<b>6.34</b>	The employer must develop and implement an exposure control plan meeting the requirements of section 5.54, if a worker has or may have occupational exposure to a bloodborne pathogen, or to other biohazardous material as specified by the Board.
<b>Risk identification</b>	<b>6.35</b>	The employer must maintain a list of all job classifications and must identify all tasks and procedures in which there is a potential for occupational exposure to a bloodborne pathogen, or to other biohazardous material specified by the Board.
<b>Control procedures</b> <b>Controls</b>	<b>6.36</b>	<p>(1) Engineering <b>controls</b> and work practice controls must be established to <del>minimize or eliminate</del> <b>or minimize</b> the potential for <b>occupational exposure to a bloodborne pathogen or other</b> biohazardous material.</p> <p><b>(1.1) On and after January 1, 2008, when hollow-bore needles are used in a workplace to access a vein or artery for the purpose of collecting blood or caring for or treating a person, the employer must ensure that</b></p> <p><b>(a) workers use only safety-engineered needles or substitute hollow-bore needles with needleless devices, unless it is not safe or practicable to do so, and</b></p> <p><b>(b) safe work procedures and practices relating to the use of those safety-engineered needles or needleless devices are implemented.</b></p> <p>(2) Personal protective equipment must be worn to shield workers from biohazardous material.</p> <p>(3) Housekeeping practices must be designed to keep the workplace clean and free from spills of biohazardous material.</p> <p>(4) Work procedures must ensure that laundry contaminated with biohazardous material is isolated and bagged, and handled as little as possible.</p> <p>(5) Repealed. [B.C. Reg. 312/2003.]</p> <p>(6) For bloodborne pathogens, the employer must implement a system of universal precautions for all tasks and procedures identified as having a potential for occupational exposure under section 6.35.</p>

**Explanatory note**

The primary intent of the proposed amendments is to make mandatory in all workplaces the use of safety-engineered hollow-bore needles to access a vein or artery for the purpose of collecting blood or caring for or treating a person. The proposal also provides for the replacement of safety-engineered needles with needleless devices, when it is practical and safe to do so, and requires the implementation of safe work procedures and practices.

This new requirement under 6.36 (1.1) is proposed to become effective on January 1, 2008, to provide sufficient time for implementation. Employers will still have to comply with existing provisions of the Regulation, notably, they have to control for any harmful exposures to workers by implementing appropriate engineering controls and work practice controls as per section 6.36 (1). The concept of neutral space is a work practice control and an example is provided in the proposed Guideline 6.36(1).

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The proposed amendments also place emphasis on the use of both engineering controls and work practice controls, and a priority on eliminating, before minimizing, the potential for exposure to a bloodborne pathogen or other biohazardous material.

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<b>Risk identification</b>	<b>6.35</b>	The employer must maintain a list of all job classifications and must identify all tasks and procedures in which there is a potential for occupational exposure to a bloodborne pathogen, or to other biohazardous material specified by the Board.
<b>Controls</b>	<b>6.36</b>	<ol style="list-style-type: none"><li>(1) Engineering controls and work practice controls must be established to eliminate or minimize the potential for occupational exposure to a bloodborne pathogen or other biohazardous material.<ol style="list-style-type: none"><li>(1.1) On and after January 1, 2008, when hollow-bore needles are used in a workplace to access a vein or artery for the purpose of collecting blood or caring for or treating a person, the employer must ensure that<ol style="list-style-type: none"><li>(a) workers use only safety-engineered needles or substitute hollow-bore needles with needleless devices, unless it is not safe or practicable to do so, and</li><li>(b) safe work procedures and practices relating to the use of those safety-engineered needles or needleless devices are implemented.</li></ol></li><li>(2) Personal protective equipment must be worn to shield workers from biohazardous material.</li><li>(3) Housekeeping practices must be designed to keep the workplace clean and free from spills of biohazardous material.</li><li>(4) Work procedures must ensure that laundry contaminated with biohazardous material is isolated and bagged, and handled as little as possible.</li><li>(5) Repealed. [B.C. Reg. 312/2003.]</li><li>(6) For bloodborne pathogens, the employer must implement a system of universal precautions for all tasks and procedures identified as having a potential for occupational exposure under section 6.35.</li></ol></li></ol>

**Note:**

Amendments have been proposed only for sections 6.33 and 6.36 of Part 6:  
The other sections of Part 6 are provided here for reading convenience only.

### *G6.36(1) Engineering and work practice controls*

Issued August 1999; Editorial Revision July 2004; Revised July 21, 2005; Proposed Revision November 2005; Draft March 24, 2006

#### **Regulatory excerpt**

The proposed amendment to section 6.36(1) of the *OHS Regulation* is:

Engineering controls and work practice controls must be established to eliminate or minimize the potential for occupational exposure to a bloodborne pathogen or other biohazardous material.

#### **Purpose of guideline**

This guideline provides examples of engineering controls and work practice controls under section 6.36(1).

#### **Background**

In all workplaces, engineering controls and work practice controls must be established to eliminate or minimize the potential for occupational exposure to a bloodborne pathogen or other biohazardous material. In addition to section 6.36(1), section 6.36(1.1) requires the use of safety-engineered needles or needleless devices when hollow-bore needles are used to access a vein or artery for the purpose of collecting blood or caring for or treating a person, unless it is not safe or practicable to do so (see also OHS Guidelines G6.36(1.1)-1 and G6.36(1.1)-2).

Note: under section 6.34, the employer must develop and implement an exposure control plan meeting the requirements of [section 5.54](#), if a worker has or may have occupational exposure to a bloodborne pathogen, or to other biohazardous material as specified by the WorkSafeBC.

#### **Engineering controls**

Part 1 of the *OHS Regulation* defines "engineering controls" as follows:

the physical arrangement, design or alteration of workstations, equipment, materials, production facilities or other aspects of the physical work environment, for the purpose of controlling risk;.

Some examples of engineering controls include but are not limited to

- Safety-engineered needles (e.g. syringes that include an automatic needle retraction mechanism or other type of integral needle guard mechanism); see OHS Guideline G6.36(1.1)-1 for advisable characteristics of safety-engineered needles;
- Blunt tip sutures
- Needleless devices (needleless devices are devices that do not use a needle for the collection of body fluids, administration of medication or fluids or any other procedures with potential exposure to a bloodborne pathogen; e.g. needleless intravenous connector)
- Safety butterflies and needleless intravenous connectors
- Retracting lancets
- Automatic re-sheathing of disposable scalpels

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- Puncture-resistant containers for sharps (sharps include anything that might produce a puncture wound that would expose a worker to blood or other potentially infectious material, such as broken glass, scalpels, contaminated ends of orthodontia wire and suture needles)
- Splatter guards
- Biological safety cabinets
- Mechanical pipetting systems.

Engineering controls must be properly selected, used, inspected, maintained and replaced as needed to ensure their effectiveness. Selected engineering controls must eliminate or minimize the risk of an exposure incident. Section [4.3](#) requires that each tool be selected, used, and operated in accordance with the manufacturer's recommendations and instructions (if available), safe work practices, and the requirements of the *OHS Regulation*.

For other engineering controls necessary in the laboratory, see sections [30.12](#) (Biological safety cabinets), [30.13](#) (Centrifuges), [30.16](#) (Transport of containers) and [30.17](#) (Personal protection) of the *OHS Regulation*.

### Work practice controls

Work practice controls reduce the likelihood of occupational exposure to biohazardous material by altering the way a task is performed. Work practice controls include, but are not limited to

- Washing hands with a suitable cleansing agent and running water immediately after removal of gloves and as soon as possible after skin contact with blood or other potentially infectious material
- Disposing of contaminated needles immediately after use in a readily available sharps container specifically designed for such use
- Applying the "hands-free" method of passing scalpels during a surgical procedure, such as using a small hand tray to transfer scalpels and other sharps to and from the surgeon's hand
- Placing contaminated reusable sharps in containers that are puncture-resistant and leak-proof, such as stainless steel trays
- Using tongs or other suitable means, such as a dust pan and disposable brush, to pick up broken glass contaminated with blood
- Prohibiting the bending, manual recapping or removing of contaminated needles
- Preventing the storage of food and/or drink in refrigerators or other locations where blood and other biohazardous materials are present.

### Additional resources

For additional information on prevention of harmful exposure to bloodborne pathogens and other infectious material, refer to the WorkSafeBC website <http://healthcare.healthandsafetycentre.org/s/Home.asp> or <http://healthcare.healthandsafetycentre.org/s/InfectiousDiseases.asp> (e.g. this site contains information on common injuries and illnesses in the health care industry and a booklet entitled [HIV/AIDS, and Hepatitis B and C: Preventing Exposure at Work](#)).

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### *G6.36(1.1)-1 Safety engineered needles*

Draft March 24, 2006

#### **Regulatory excerpt**

Proposed section 6.36(1.1) of the *OHS Regulation* states:

- (1.1) On and after January 1, 2008, when hollow-bore needles are used in a workplace to access a vein or artery for the purpose of collecting blood or caring for or treating a person, the employer must ensure that
- (a) workers use only safety-engineered needles or substitute hollow-bore needles with needleless devices, unless it is not safe or practicable to do so, and
  - (b) safe work procedures and practices relating to the use of those safety-engineered needles or needleless devices are implemented.

#### **Purpose of guideline**

This guideline comments on the implementation period for the proposed requirements under s. 6.36(1.1), clarifies the safe use of safety-engineered needles under section 6.36(1.1), and lists some advisable characteristics of safety-engineered needles.

#### **Implementation period**

Proposed section 6.36(1.1) deems the requirements for safety-engineered needles to be effective on or after January 1, 2008, in order to allow sufficient time for employers to commit funds, adopt safety-engineered devices, change workplace policy and practices, and educate and train workers.

#### **Safe and practicable**

Hollow-bore needles that are used to access veins or arteries include intravenous needles and other vascular access needles.

Under section 6.36(1.1), “safe” means that the use of the safety-engineered needle does not in itself create a hazard to the worker. Note that under section [1.1](#) of the *OHS Regulation*, practicable is defined as “that which is reasonably capable of being done.”

#### **Advisable characteristics of safety-engineered devices**

A number of sources<sup>1</sup> suggest that advisable characteristics of safety-engineered devices include

- The device is safe and effective for workers and patients.
- The safety feature (e.g. needles guard) is an integral part of the device and is not an accessory.

The device preferably works passively (i.e., it requires no activation by the user). If user activation is necessary, the safety feature can be engaged with a single-handed technique and allows the worker's hands to remain behind the exposed sharp. Note: post-withdrawal activation of built-in needle guarding mechanisms carries a risk of harmful exposure that must be controlled through the use of safe

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<sup>1</sup> OSHA 1999c; FDA 1992; Jagger et al. 1988; Chiarello 1995; Quebbeman and Short 1995; Pugliese 1998; Fisher 1999; ECRI 1999

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- work practices under section 6.36(1.1)(b) (e.g. activate the guard immediately upon withdrawal from the patient).
- The user can easily tell whether the safety feature is activated.
  - The safety feature cannot be deactivated and remains protective after disposal to protect users and waste handlers.
  - The device performs reliably.
  - The device is easy to use and practical.

Although each of these characteristics is desirable in most circumstances, some are not feasible or applicable for certain health care situations. For example, a safety feature that requires activation by the user might, in some cases, be preferable to a safety feature that works passively. Each safety-engineered needle must be considered on its own merits and on its ability to reduce workplace injuries.

### *G6.36(1.1)-2 “Workplace”*

Draft March 24, 2006

#### **Regulatory excerpt**

Proposed section 6.36(1.1) of the *OHS Regulation* states:

- (1.1) On and after January 1, 2008, when hollow-bore needles are used in a workplace to access a vein or artery for the purpose of collecting blood or caring for or treating a person, the employer must ensure that
- (a) workers use only safety-engineered needles or substitute hollow-bore needles with needleless devices, unless it is not safe or practicable to do so, and
  - (b) safe work procedures and practices relating to the use of those safety-engineered needles or needleless devices are implemented.

#### **Purpose of guideline**

This guideline highlights the definition of “workplace” in the *Workers Compensation Act* “Act” and provides some examples of workplaces under section 6.36(1.1) of the *OHS Regulation*.

#### **Definition of “workplace”**

Section 106 of the *Act* defines workplace as any place where a worker is or is likely to be engaged in any work and includes any vessel, vehicle or mobile equipment used by a worker in work. The following are some examples of “workplaces” where section 6.36(1.1) would apply

- homecare sites
- correctional institutes
- ambulances
- dental offices
- medical and dental laboratories
- health clinics, including in industrial facilities
- hospitals
- outpatient facilities (including renal dialysis clinics and cancer treatment centers)

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- hemodialysis centres
- drug treatment centres
- blood banks
- blood collection agencies
- hospices
- residential care facilities
- assisted living residences
- physicians' offices
- naturopaths' offices.

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