GENERAL REQUIREMENTS

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18.1 Definitions

In this Part:

"barrier" means a solid or continuous installation designed to prevent errant vehicles from entering a closed or hazardous work zone;

"brief duration work" means planned work in a work zone that requires 15 minutes or less to complete;

"emergency" means an incident that requires immediate action to protect lives or prevent serious injury;

"emergent work" means quick response work necessitated by an unanticipated occurrence, other than an emergency, if the total time required for workers to complete the quick response work is less than 5 minutes;

"long duration work" means planned work in a work zone that requires

(a) more than one daylight period to complete,

(b) night work, or

(c) mobile work;

"mobile work" means continuously slow-moving work or intermittently moving work with stops of 30 minutes or less;

"risk assessment" means a risk assessment in accordance with section 18.3.1;

"short duration work" means planned work in a work zone that requires more than 15 minutes during a single daylight period to complete;

"temporary traffic control device" means a sign, signal, marking or other device used to regulate, warn or guide traffic through or around a work zone for a limited period of time;

"traffic assistant" means a person who

(a) has completed the training described in section 18.6.3, and

(b) assists or directs motorists within parking or holding areas in a specified workplace, such as a parking lot or roadway terminus used for vehicle holding prior to boarding a vessel;

"traffic control" means the use of temporary traffic control devices, traffic arrangements or layouts and procedures to protect workers and move traffic safely through a work zone;

"traffic control person" means a person who

(a) has completed the training described in section 18.6.2, and

(b) is designated or assigned by the employer to direct traffic;

"traffic control plan" means a workplace-specific plan that documents how traffic control is to be achieved, including

(a) a combination of text, layouts and, if required, drawings that describe specifically the traffic control measures and devices that will be provided to mitigate the risks from hazards identified in the risk assessment,

(b) how the traffic control measures are to be implemented, and

(c) on what schedule the traffic control measures are to be implemented;

"Traffic Management Manual" means the latest edition of the *Traffic Management Manual for Work on Roadways* issued by the Ministry of Transportation and Infrastructure;

"work zone" means an area where a worker is or may be exposed to a moving vehicle, with the exception of

(a) a parking lot, and

(b) a roadway terminus used for vehicle holding prior to boarding a vessel.

[Enacted by B.C. Reg. 242/2006, effective January 1, 2007.]
[Amended by B.C. Reg. 222/2021, effective December 1, 2021.]

18.2 Responsibility

The employer must ensure that effective traffic control is provided and implemented whenever traffic could be hazardous to a worker.

[Enacted by B.C. Reg. 242/2006, effective January 1, 2007.]
[Amended by B.C. Reg. 222/2021, effective December 1, 2021.]

18.3 Standards for traffic control

(1) The Traffic Management Manual applies to all work zones.

(2) An employer must ensure that traffic control equipment, arrangements or layouts and procedures, to the extent practicable, meet the requirements of the Traffic Management Manual unless otherwise specified in this Regulation or in the Act.

[Enacted by B.C. Reg. 222/2021, effective December 1, 2021.]

18.3.1 Risk assessment

(1) An employer must not permit workers to engage in a work activity that may expose workers to traffic unless a risk assessment has first been completed by a qualified person and the risk assessment

(a) meets the requirements of subsection (2) or (3), as applicable, and

(b) takes into account the risks to worker health and safety whenever traffic control is required for

(i) emergent work,

(ii) brief duration work,

(iii) short duration work, or

(iv) long duration work.

(2) An employer responsible for emergent work or brief duration work must

(a) determine that the emergent work or brief duration work can be performed safely in less than 5 minutes or 15 minutes or less, respectively,

(b) develop written work procedures applicable to the emergent work or brief duration work, including specifying

(i) the temporary traffic control devices and layouts required, if applicable, and

(ii) instructions and procedures to follow when a worker encounters an unanticipated occurrence that prevents the work from being completed in the time allocated, and

(c) require workers to follow the written work procedures described in paragraph (b).

(3) An employer responsible for short duration work or long duration work must ensure that the risk assessment is in writing and includes consideration of at least the following:

(a) work duration and time of day the work activity is scheduled to occur;

(b) whether the nature of the work activity is expected to create a hazard;

(c) whether any of the following is expected to create a risk of worker injury:

(i) traffic volume;

(ii) lines of sight;

(iii) vehicles travelling at the posted speed limits;

(iv) configuration of the work zone, including the number of lanes and lane widths;

(v) equipment movement and storage;

(d) environmental conditions or hazards that could present a risk to workers during the installation or removal of temporary traffic control devices, including

(i) avalanche or rock fall areas,

(ii) overhead structures, and

(iii) roadway surface conditions;

(e) coordination of overlapping work activities;

(f) any other reasonably foreseeable hazard;

(g) whether traffic control persons are required, and, if so,

(i) the availability of escape routes for those traffic control persons,

(ii) environmental conditions or hazards,

(iii) the locations at which traffic control persons can be positioned to direct traffic and avoid the risk of being struck by traffic,

(iv) requirements for breaks by those traffic control persons, including hygiene breaks,

(v) shift duration and the number of traffic control persons required for the work, and

(vi) what site-specific orientation and training are required for traffic control persons at the work zone;

(h) the level of supervision required.

(4) An employer referred to in subsection (2) or (3), as applicable, must ensure that the risk assessment is reviewed and updated by a qualified person if

(a) there is reason to believe the risk assessment is no longer valid, or

(b) there has been a significant change in the scope or nature of the work to which the risk assessment relates.

[Enacted by B.C. Reg. 222/2021, effective December 1, 2021.]

18.3.2 Traffic control plan

(1) An employer responsible for short duration work or long duration work must ensure that a written traffic control plan is developed based on the risk assessment.

(2) The traffic control plan required under subsection (1) must specify

(a) traffic control measures to mitigate the hazards identified in the risk assessment,

(b) instructions for implementation of the traffic control measures,

(c) clear statements of roles and responsibilities for implementing the traffic control plan, and

(d) a schedule, for the traffic control plan, for

(i) implementation, and

(ii) regular review and updating.

(3) If the risk assessment is updated under section 18.3.1(4), the employer must ensure that

(a) the traffic control plan is amended to address the changes to the risk assessment, and

(b) the amendments to the traffic control plan are implemented.

(4) The employer must ensure that the traffic control plan is accessible at all times to workers at the work zone.

[Enacted by B.C. Reg. 222/2021, effective December 1, 2021.]

18.3.3 Order of control measures

(1) An owner and an employer each must, to the extent practicable, eliminate the risk of worker exposure to traffic in a work zone by isolating the work zone using constructed detours, alternative routes, barriers or other effective measures.

(2) If it is not practicable to eliminate worker exposure to traffic in a work zone by using the measures described in subsection (1), worker exposure to traffic must be minimized by applying control measures that

(a) are appropriate to the work activity,

(b) are consistent with the risk assessment, and

(c) include, in order of priority,

(i) the use of temporary traffic control devices and traffic arrangements or layouts and procedures to effectively protect workers from traffic travelling by or through a work zone without the use of traffic control persons,

(ii) administrative controls that reduce the number of workers exposed to traffic, such as scheduling work during off-peak hours, and

(iii) the use of traffic control persons only after the control measures set out in subparagraphs (i) and (ii), either alone or in combination, have been considered and determined to be insufficient to manage traffic in the circumstances.

[Enacted by B.C. Reg. 222/2021, effective December 1, 2021.]

18.4 Supervision

(1) An employer must ensure that a qualified supervisor is designated whenever traffic control is required.

(2) The employer must ensure that the supervisor designated under subsection (1) ensures that the following requirements are met:

(a) traffic arrangements or layouts and procedures are implemented in accordance with the traffic control plan set out in section 18.3.2;

(b) the required temporary traffic control devices are in place before the start of work and are removed or covered immediately when they are no longer required;

(c) the work zone is inspected at intervals appropriate to the risks;

(d) it has been verified that any person assigned to direct traffic can provide evidence of having completed the traffic control training program in accordance with section 18.6.2;

(e) if traffic control persons are assigned, the traffic control persons are, before their first shift, provided orientation and training at the work zone that are

(i) documented or otherwise recorded, and

(ii) consistent with the risks identified in the risk assessment;

(f) if 2 or more traffic control persons are expected to work as a team,responsibility is assigned to one traffic control person to coordinate any changes in traffic flow.

[Enacted by B.C. Reg. 222/2021, effective December 1, 2021.]

18.5 Placement of temporary traffic control devices

An employer must ensure that

(a) temporary traffic control devices are positioned and used as specified in the traffic control plan,

(b) temporary traffic control devices are positioned to allow traffic to move by or through the work zone in a safe manner,

(c) temporary traffic control devices are in place before the start of the work and are removed or covered immediately when they are no longer required,

(d) temporary traffic control devices are installed and removed in a sequence that best protects workers during each phase of a traffic control operation, and

(e) the distance between the Traffic Control Person Ahead C-001-1 sign and the first traffic control person does not exceed 150 metres, unless this is not practicable.

[Enacted by B.C. Reg. 222/2021, effective December 1, 2021.]

18.6 Prohibitions

An employer must ensure that

(a) traffic control persons are not used to control traffic when speed limits in effect are greater than 70 km/h,

(b) traffic control persons do not direct traffic contrary to any sign, signal or traffic control device, and

(c) traffic control persons are not positioned in an intersection open to traffic flow or the travelled portion of a roadway.

[Enacted by B.C. Reg. 222/2021, effective December 1, 2021.]

18.6.1 Emergency management

(1) In this section, *"emergency responder"* includes, when present at an emergency scene in a work zone, a firefighter, paramedic, highway rescue worker, search and rescue worker, tow truck worker, utility owner's worker, road authority worker and road maintenance worker.

(2) Subject to subsections (3) and (4), emergency responders may be assigned to direct traffic during an emergency.

(3) An emergency responder, other than a peace officer, may not direct traffic under subsection (2) unless the emergency responder has completed training that includes

(a) basic traffic control principles,

(b) instructions on the use, set-up and take down of temporary traffic control devices,

(c) traffic management principles described in the Traffic Management Manual,

(d) use of a buffer vehicle to protect the work zone during an emergency,

(e) safe work procedures, and

(f) appropriate selection, use and maintenance of personal protective clothing and safety equipment.

(4) An emergency responder, other than a peace officer, may not direct traffic under subsection (2) for more than 2 hours after the start of the emergency unless the emergency responder has completed the training described in section 18.6.2.

[Enacted by B.C. Reg. 222/2021, effective December 1, 2021.]

18.6.2 Traffic control person training

(1) An employer must ensure that a traffic control person has completed a Board-approved traffic control training program.

(2) On and after December 1, 2023, the traffic control training program must be based on

(a) analysis of the knowledge, skills, abilities and other requirements to perform the job, and

(b) training and competency assessment criteria contained in any one of the following:

(i) *ISO/IEC 17024:2012, Conformity Assessment - General Requirements for Bodies Operating Certification of Persons*;

(ii) *ANSI/ICE 1100: 2019(E), Standard for Assessment-Based Certificate Programs*;

(iii) *ASTM International ASTM E2659-18, Standard Practice for Certificate Programs*;

(iv) *CAN/CSA Z1001-18, Occupational health and safety training*;

(v) another standard acceptable to the Board.

(3) Successful completion of the traffic control training program must include an assessment of the trainee's

(a) knowledge of the subject matter, and

(b) practical competency.

[Enacted by B.C. Reg. 222/2021, effective December 1, 2021.]

18.6.3 Traffic assistant training

(1) An employer must ensure that a traffic assistant receives workplace training that addresses the hazards specific to the workplace and that includes coursework and a practical component.

(2) The coursework for a traffic assistant referred to in subsection (1) must include

(a) basic traffic control principles,

(b) instructions on the use, set-up and take down of temporary traffic control devices,

(c) safe work procedures that include identifying an escape route, and

(d) appropriate selection, use and maintenance of personal protective clothing and safety equipment.

[Enacted by B.C. Reg. 222/2021, effective December 1, 2021.]

18.7 Traffic control person to remain on duty

The employer must ensure that a traffic control person is on duty at the assigned station whenever a traffic control person is required as part of the traffic control plan for the work.

[Enacted by B.C. Reg. 242/2006, effective January 1, 2007.]

18.8 Location of traffic control persons

(1) Subject to section 18.6 and subsection (3) of this section, an employer must ensure that a traffic control person is in a position that has been identified in the risk assessment as a safe location.

(2) A safe location referred to in subsection (1) is one that

(a) is

(i) on the shoulder or curb adjacent to the traffic being controlled, or

(ii) in a lane that has been closed by means of barriers or other temporary traffic control devices,

(b) provides the traffic control person with an unobstructed route to escape errant vehicles or traffic,

(c) is 25 metres or more from the work zone, unless circumstances or space requirements, such as working at or near an intersection open to traffic flow or in an urban setting, make this distance not practicable, and

(d) makes the traffic control person stand out against the background or appear as conspicuous as possible to approaching traffic.

(3) If a risk assessment identifies that it is not practicable to position the traffic control person in a location as described in subsection (2), the employer must ensure that the positioning of the traffic control person is based on a written risk assessment of site-specific conditions completed to determine an alternative position to provide safety for the traffic control person.

[Enacted by B.C. Reg. 222/2021, effective December 1, 2021.]

18.9 Operations during daytime

Each traffic control person must be provided and must use, when directing traffic, the following:

(a) a traffic control paddle meeting the requirements set out in the Traffic Management Manual and, if determined by a risk assessment as required to control fatigue, an extension pole for the paddle;

(b) a Traffic Control Person Ahead C-001-1 sign, which must be immediately removed or covered when traffic control persons are not actively controlling traffic;

(c) high visibility apparel meeting the requirements for the Class 3 garment criteria of *CSA Standard Z96-15, High-Visibility Safety Apparel* and that

(i) is in fluorescent yellow-green or fluorescent orange-red background colour,

(ii) covers fully, at a minimum, the upper torso,

(iii) has, in a contrasting colour, combination retroreflective-fluorescent stripes/bands that are at least 100 millimetres wide, made up of an at least 50 millimetre-wide retroreflective band with 2 at least 25 millimetre-wide fluorescent stripes in a contrasting colour to the background colour, in fluorescent yellow-green or fluorescent orange-red, on each side of the retroreflective band,

(iv) is worn as a torso vest, jacket or coveralls, with the combination retroreflective-fluorescent stripes/bands described in subparagraph (iii) laid out in the following pattern:

(A) a symmetric X, on the back of the garment, from shoulders to waist;

(B) 2 vertical stripes/bands on the front and extending over the shoulders to the waist;

(C) waist-level, horizontal stripes/bands extending entirely around the circumference of the torso, from the back to the bottom of the vertical stripes/bands on the front where they end at the front garment-fastening mechanism;

(D) with no gaps, in the retroflective-fluorescent material, that exceed 50 millimetres, and

(v) has horizontal combination retroreflective-fluorescent stripes/bands encircling both arms and legs, that are of the measurements set out in subparagraph (iii) and that are placed below the elbows and below the knees, respectively;

(d) safety headgear of a high visibility colour with a strip of retroreflective tape across the top from front to back and a strip of retroreflective tape on each side;

(e) any other equipment required by the risk assessment.

[Enacted by B.C. Reg. 222/2021, effective December 1, 2021.]

18.10 Operations during darkness or poor visibility

(0.1) In this section, "*darkness*" means the period from a half hour after sunset to a half hour before sunrise.

(1) During the hours of darkness, or in other conditions of poor visibility, each traffic control person must be provided with and must use, in addition to the equipment required by section 18.9, a flashlight fitted with a red signalling wand.

(2) For the purpose of subsection (1), the traffic control person must have immediate access to spare batteries for the flashlight.

(3) During the hours of darkness, or in other conditions of poor visibility, a location from which a traffic control person directs traffic must be illuminated by

(a) overhead street lighting, or

(b) if overhead street lighting is not available, temporary lighting that does not subject approaching road users to excessive glare.

[Enacted by B.C. Reg. 242/2006, effective January 1, 2007.]
[Amended by B.C. Reg. 222/2021, effective December 1, 2021.]

18.11 Equipment maintenance

All temporary traffic control equipment and devices, including signs, traffic control paddles and personal protective equipment, must be kept clean and in good working condition.

[Enacted by B.C. Reg. 242/2006, effective January 1, 2007.]
[Amended by B.C. Reg. 222/2021, effective December 1, 2021.]

18.12 Precise motions

A traffic control person must make all traffic control directions and signals precisely and deliberately so that the meaning can be clearly understood.

[Enacted by B.C. Reg. 242/2006, effective January 1, 2007.]

18.13 Communication between traffic control persons

If more than one traffic control person is controlling traffic at the same work zone, the employer must ensure that an effective means of communication is provided to and used by those persons for communication between them.

[Enacted by B.C. Reg. 242/2006, effective January 1, 2007.]
[Amended by B.C. Reg. 222/2021, effective December 1, 2021.]

18.14 Standard signals for traffic

Repealed. [B.C. Reg. 222/2021, effective December 1, 2021.]

18.15 Dust control

If traffic causes airborne dust to the extent visibility is reduced and interferes with effective traffic control or creates a hazard to workers, the employer must control the dust by the periodic application of water or other acceptable material to the grade surface to suppress dust.

[Enacted by B.C. Reg. 242/2006, effective January 1, 2007.]

18.16 Long periods of delay

Repealed. [B.C. Reg. 222/2021, effective December 1, 2021.]

18.17 Towing and recovery operations

Repealed. [B.C. Reg. 222/2021, effective December 1, 2021.]

Figure 18-1: Arm signals between traffic control persons

Repealed. [B.C. Reg. 222/2021, effective December 1, 2021.]

Figure 18-2: Arm signals for traffic control

Repealed. [B.C. Reg. 222/2021, effective December 1, 2021.]