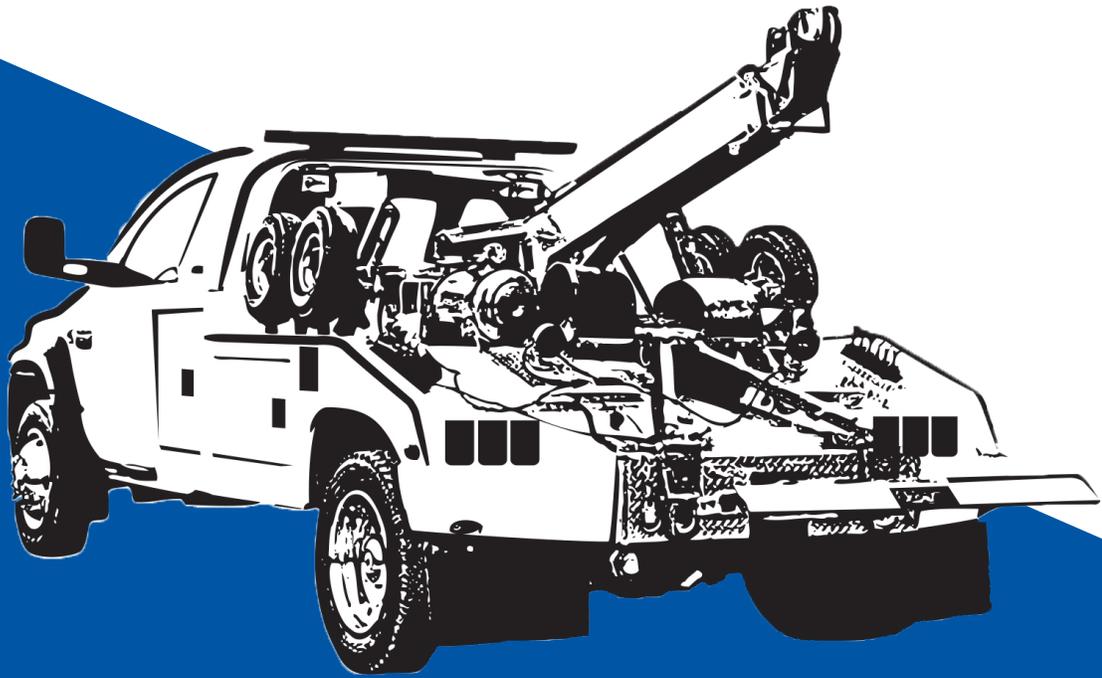




AUTOMOTIVE RETAILERS ASSOCIATION
Driving Industry Excellence



**OHS RESPONSIBILITIES AND
INDUSTRY SUPPORTED SAFE WORK PRACTICES
FOR THE AUTO TOWING
AND RECOVERY INDUSTRY**

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Part I

This section includes information on the following:

- How to use this guide
- Purpose of this document
- Scope
- Legal disclaimer
- Copyright
- Acknowledgements
- Definitions
- Workplace information resources



How To Use This Guide

For Employers

For Supervisors

For Workers

For Safety Committee Members

For Owner Operators



Purpose of This Document

The purpose of this document is to:

- Provide information about workplace health and safety;
- Provide the auto towing and recovery industry with safe work practices to eliminate or control hazards that can cause death, injury, or illness to auto towing and recovery workers.

Objectives

Objectives for this document include:

- Increasing awareness of OHS responsibilities, worker rights and OHS program requirements;
- Advising on safe work practices to help employers eliminate and control hazards common to the auto towing industry;
- Assisting employers and other workplace parties to comply with the requirements of the Workers Compensation Act (the Act), the Occupational Health and Safety Regulation (the Regulation) and other laws and statutes.

Scope

The scope of this document is specific to the auto towing and recovery industry. It includes information and safe work practices on the following topics:

- | | |
|--|---|
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| <input type="checkbox"/> Meeting Due Diligence | <input type="checkbox"/> Dispatch and Communication |
| <input type="checkbox"/> Occupational Health and Safety Program Requirements | <input type="checkbox"/> Arriving at a Scene |
| <input type="checkbox"/> Risk Assessments | <input type="checkbox"/> Deck Loading and Transport |
| <input type="checkbox"/> Identifying Hazards | <input type="checkbox"/> Wrecker Loading and Transport |
| <input type="checkbox"/> Hierarchy of Safety Controls | <input type="checkbox"/> Drive Shaft Removal and Pulling Axles |
| <input type="checkbox"/> Job Task Analysis Exposure to Chemical and Biological Hazards | <input type="checkbox"/> Recoveries |
| <input type="checkbox"/> Work Near Utilities | <input type="checkbox"/> Complex Recoveries |
| <input type="checkbox"/> Steep Slope and Embankment Recovery | <input type="checkbox"/> Safe Machinery and Equipment |
| <input type="checkbox"/> Water Recovery | <input type="checkbox"/> Road Conditions and Extreme Weather Conditions |
| | <input type="checkbox"/> Traffic Management |
| | <input type="checkbox"/> Violence in the Workplace |

This document is intended to provide workplace parties in the auto towing and recovery industry with information on their basic legal responsibilities and a consistent approach in identifying and safely controlling common workplace hazards. It is not intended to provide a “ready-made” health and safety program. While the hazards and controls described in this document may be common to many auto towing and recovery firms, employers — with input from their supervisors and workers — need to develop and implement an effective health and safety program that is specific to their operation.

Legal Disclaimer

The information presented in this document does not take the place of professional occupational health and safety advice and is not guaranteed to meet the requirements of applicable laws, regulations, and

rules, including workplace health and safety laws and motor vehicle and traffic laws. The ARA and their respective employees, officers, directors, or agents assume no liability for, or responsibility for any loss or damage suffered or incurred by any person arising from or in any way connected with the use of or reliance upon the information contained in this document including, without limitation, any liability for loss or damage arising from the negligence or negligent misrepresentation of the ARA in any way connected with the information contained in this document. The information provided in this document is provided on an “as is” basis. The ARA does not guarantee, warrant, or make any representation as to the quality, accuracy, completeness, timeliness, appropriateness, or suitability of any of the information provided, and disclaims all statutory or other warranties, terms, or obligations of any kind arising from the use of or reliance upon the information provided, and assumes no obligation to update the information provided or advise on future developments concerning the topics mentioned.

Copyright

All rights reserved.

The information contained in this document is to be made available free of charge to all firms registered in the WorkSafeBC Auto Towing and Recovery Classification Unit (CU) 7322006. The Automotive Retailers Association encourages the distribution of this document to promote health and safety in the workplace. However, no part of this publication may be copied, reproduced, or distributed for profit or other commercial enterprise, nor any part be incorporated into any other publication without the express written consent of the Automotive Retailers Association.

Acknowledgements

The Automotive Retailers Association (ARA) would like to thank the members of the towing and recovery division’s technical advisory committee (TAC) for their time and energy in helping to compose and assemble these industry-supported safe work practices into a single comprehensive document. The ARA would also like to thank WorkSafeBC for helping fund this initiative and for their advice and assistance in drafting the language of this document.

Definitions

OHS Definitions Used in This Document:

- Classification Unit: similar businesses share the same WorkSafeBC classification unit and pay the same base premium rate for their WorkSafeBC insurance.
- Due Diligence: due diligence requires that an employer identify all workplace hazards, implement all necessary preventive measures, and communicate appropriately to all necessary personnel.
- Education: generally refers to classroom instruction that may include lectures, discussions, and videos.
- Employer: a self-employed proprietor, partnership, corporation, society, or any other type of legal entity that hires workers or unregistered subcontractors.
- Ergonomics: a process that safely matches workplace conditions and job demands to a person’s capabilities.
- First Aid Requirements: employers are responsible for providing workers with prompt, easily accessible, and appropriate first aid treatment.
- Frostbite: a common cold weather injury caused by exposure to the cold and high winds.
- Hazard: a *hazard* means a thing or condition that may expose a worker to a risk of injury or occupational disease.
- Heat cramps: a condition that may occur after extreme exertion and a loss of salt through

- sweating usually located in the legs, arms, or abdomen.
- Heat exhaustion: a condition that may occur when a person does not drink enough water and sodium to replace lost fluids while working.
 - Heat stroke: a potentially life threatening situation where a person has normal or below normal temperature, may be sweating, but will have cool skin.
 - Hierarchy of controls: a listing of safety control measures in order of their effectiveness.
 - Hypothermia: a condition in which a person is exposed to extreme cold for a long enough period to dangerously lower their core body temperature.
 - Incident: a workplace occurrence which resulted in or has the potential to cause an injury or occupational disease.
 - Injury rate: the number of non-health care only claims per one hundred person-years of covered employment, where one hundred person-years is the equivalent of one hundred full-time & part-time employees working in the year.
 - Musculoskeletal injury: an injury which can affect muscles, tendons, ligaments, nerves, blood vessels, and joints of the neck, shoulders, arms, wrists, legs, and back. MSIs are a common type of workplace injury in all industries, accounting for about one-third of claims accepted by WorkSafeBC.
 - Near miss incident: a work-related incident that has the potential for serious injury, death, or significant property damage.
 - OHS Guidelines: information from WorkSafeBC to help with the interpretation of many sections of the *OHS Regulation* and sections of the *Workers Compensation Act* that relate to health and safety.
 - OHS policies: the official policies of WorkSafeBC that an organization must apply when making decisions.
 - OHS Program: a health and safety requirement, the type of which depends on the size of the workforce and the nature and extent of the risks and hazards in the workplace.
 - Occupational Health and Safety Regulation (OHS Regulation): a document that contains legal requirements for workplace health and safety that must be met by all workplace parties in B.C.
 - Order: a WorkSafeBC directive to comply with the Act and or OHS Regulation.
 - Procedure: a written procedure lists a sequential process for safely performing a work-related task.
 - Risk: the chance or likelihood of injury or occupational disease.
 - Risk assessment: a health and safety process to ensure workers are protected while on the job. Specific risk assessment requirements are defined in different parts of the OHS Regulation.
 - Safe work practice: a description of non-sequential activities to help workers safely perform a task.
 - Standards: certain sections of the OHS Regulation refer to standards developed by WorkSafeBC.
 - Supervisor: a person who instructs, directs, and controls workers in the performance of their duties.
 - Time-loss claims: the number of claims where the injuries occurred in a given year and were accepted for short-term disability, long-term disability, or survivor benefits in that year or in the first three months of the following year.
 - Training: hands-on, job-specific instruction that may include demonstrations by workers so that supervisors can confirm that workers understand written safe work practices and procedures.
 - Traffic control devices: includes cones, signs, barricades, flashing Lights, flaggers, flashing arrow boards or any other item that warns drivers of a change in the road circumstance.
 - Violence: attempted or actual physical force or any threatening statement or behaviour which gives a worker cause to believe they are at risk of injury.
 - WHMIS (1988 and 2015): a system that provides information on hazardous products used

in the workplace. Employers must use this information, as well as information specific to their workplaces, to educate and train workers to work safely with and near hazardous products.

- Worker: a person who is deemed to be a worker under the Act.
- Workers Compensation Act: a Statute to promote a culture of commitment on the part of employers and workers to a high standard of occupational health and safety. Part 3 of the Act addresses matters “such as the rights and responsibilities of workplace parties, joint committees, and worker representatives, protection against OHS-Related discrimination, incident reporting, investigations, enforcement, offences, administrative procedures, and regulation-making authority.” Some sections of the Act have associated policies and guidelines.
- Workplace health and safety policy: a document that describes an employer’s commitment to protect the health and safety of workers and their commitment to the OHS program, among other details.
- New and young worker: *new worker* includes any worker who is new to the workplace, returning to a workplace where the hazards have changed, or relocated to a new workplace if the hazards in that workplace are different from the hazards in the worker’s previous workplace. *Young worker* means any worker less than 25 years of age.

Industry Definitions Used in This Document:

- Anchor: a stable object used as an attachment point for rigging during recovery work.
- Boom: a structural member of a tow truck. Most tow trucks have a hydraulically powered boom and can be used to hold, extend, retract, or lift a load free off the ground.
- Breaking Strength Rating: refers to the manufacturer’s strength rating of new equipment. It is the maximum weight or load, as established by the manufacture, that new equipment can bear under ideal conditions.
- Cable: a term mistakenly used to denote wire rope.
- Carrier: a special truck bed used in the towing industry for transporting vehicles.
- Chocks: blocks used to keep wheels from rolling.
- Dolly: a four-wheel carriage used in towing to support the trailing end of a vehicle.
- Force: the push or pull in any direction.
- GAWR: gross vehicle axle weight.
- GVWR: gross vehicle weight rating.
- Hazard: in a recovery, a hazard is any condition that can adversely affect or injure the tow truck operator or another person.
- Hazardous materials: any material substance that could adversely affect or injure anyone who comes into contact with it, or any material that can cause a fire or explosion if ignited.
- Jacks: the extendable legs used on a tow truck at its tailgate.
- Lift rating: a term used in towing and recovery to indicate the maximum load that can be lifted by a device.
- Line: a general term used for wire rope.
- Load for safe steering: the maximum load that can be lifted and towed without making the tow truck’s steering unsafe.
- Overhang: the horizontal distance from the centre of the tow truck’s rear axle to the lift point on its towing device.
- Pull: in a recovery, the effect created when winding rope onto a winch attached to a load.
- Rating: the limits established by a manufacturer for the equipment they make.
- Recovery: includes the removal of any object that has been mired.
- Recovery path: the route that a vehicle follows while being recovered.
- Resistance: the restraining forces that contribute to the load.
- Rigging: to connect rope and other devices to a vehicle for recovery.

- Right: to set a vehicle back on its wheels.
- Safety Chains: used to prevent a runaway vehicle in the event it becomes free from its towing device.
- Safe Towing Capacity: the amount of weight or load that does not cause more than 50% loss of the tow trucks front axle weight (FAW).
- Scotch Blocks: metal, wedge shaped blocks used to keep a tow truck from moving during a recovery.
- Shock Load: a sharp and sudden increase in the load as a result of the load slipping, snagging, or bouncing.
- Slope: slanted ground. The amount of slope in the recovery path can be expressed in either degrees or percent of grade.
- Snatch Block: A pulley wheel with two side plates and a hook. Snatch blocks are used to change the direction of pull or used to double or triple a line to a load. The extra line enables a winch to handle a load greater than it could otherwise.
- Stabilize: to restrain a tow truck's ability to move during a recovery.
- Towing and Recovery: the towing industry makes a distinction between these two terms. Wrecked vehicles that are off the roadway must be brought back (recovered) to the roadway before they can be towed. Vehicles broken down on the roadway do not require recovery before they can be towed.
- Tow Chains: used with a tow sling to attach its anchor bar to the vehicle being towed.
- Tow Rating: the maximum total weight of a vehicle that can be safely towed with a device.
- Tow Sling: a device used for towing vehicles.
- Wheel Base: the horizontal distance from the centre of a vehicle's front wheels to the centre of its rear wheels.
- Wheel Lift: A towing device that tows a vehicle by its wheels.
- Winch: a device used for winding and unwinding wire rope.
- Wire Rope: mistakenly referred to as cable, wire rope is used on a winch of a tow truck for lifting or pulling loads. One end is secured to a winch drum; the other end has a hook.
- Working Load Limit (WLL): the maximum load that a user can safely apply to equipment. In towing and recovery, the term is typically applied to wire rope. It is a fraction of the rope's breaking strength.
- Wrecker: a tow truck mounted hoisting rig used for recovering and towing vehicles.

Information Resources

Automotive Retailers Association (ARA)

The ARA represents the automotive industry in B.C. We're here to ensure the key issues and needs of our dynamic industry are being addressed so our members can focus on their own business growth and success. The ARA is the largest trade association of its kind in Canada, with over 1000 business members across British Columbia. For more information visit www.ara.bc.ca.

www.WorkSafeBC.com

WorkSafeBC is an independent provincial statutory agency committed to safe and healthy workplaces and providing legislated compensation benefits to workers injured as a result of their employment. WorkSafeBC was born out of a compromise between B.C.'s workers and employers in 1917 where workers gave up the right to sue their employers or fellow workers for on-the-job injuries in return for a no-fault insurance program fully paid for by employers. For more information visit www.WorkSafeBC.com.

WorkSafeBC Prevention Information Line at 1-888-621-SAFE (7233)

The WorkSafeBC Prevention Information Line is available to answer questions about workplace

health and safety, OHS responsibilities and to report a workplace incident. The Prevention Information Line accepts anonymous calls. To report after-hours and weekend incidents and emergencies, call 604 273-7711 in the Lower Mainland, or toll-free at 1 866 922-4357 (WCB-HELP) in British Columbia.

Employers' Advisers Office

Operating independently of WorkSafeBC, the Employers' Advisers office provides free advice, assistance, representation, and education to employers related to the workers' compensation system. For more information visit www.gov.bc.ca.

Workers' Advisers Office

Operating independently of WorkSafeBC, the Workers' Advisers Office provides free advice and assistance to workers and their dependants concerning WorkSafeBC decisions. For more information visit www.gov.bc.ca.

Health and Safety Associations

Health and Safety Association (HSAs) are organizations that serve the safety needs of stakeholders operating in a variety of B.C. industry sectors. Funded by employer levies, HSAs work to reduce the incidence of workplace injury, disease, and death in their respective industry sectors by promoting a strong workplace safety culture and providing services such health and safety education, training, and advice. In addition, many HSAs are "Certifying Partners" (CPs) for WorkSafeBC's Certificate of Recognition (Partners) Program, which encourages employers to create a voluntary OHS management system that goes beyond the current legal requirements.

Some examples of HSAs include the following:

SafetyDriven

SafetyDriven™ represents the occupational health and safety needs of the general trucking and moving and storage CUs. For more information visit www.safetydriven.ca.

BC Construction Safety Alliance

The BCCSA is a non-profit organization serving the construction, aggregate, and ready-mixed CUs. For more information visit www.bccsa.ca.

BC Fed Health and Safety Centre

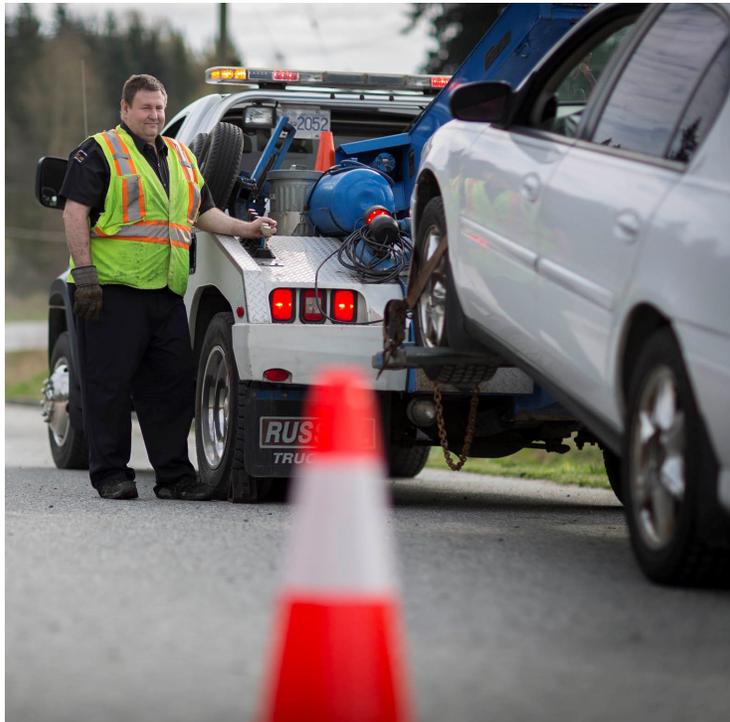
The centre provides health and safety education to joint committee members, workplace representatives, and other workplace parties. For more information visit www.healthandsafetybc.ca.

For a complete listing of B.C.-based HSAs and CPs visit www.WorkSafeBC.com.

Part II

This section includes information on the following:

- Injury Overview For the Auto Towing and Recovery Industry



Injury Overview of the BC Auto Towing Classification Unit

Overview

Just under 250 B.C. employers are registered in the Auto Towing classification unit (CU 732006). The majority of these firms have fewer than 20 workers. (Only 13 firms employ 20 or more workers.)

A typical year in B.C.'s transportation industry

Auto Towing is one of 36 classification units (CUs) in the WorkSafeBC Transportation and Related Services Subsector, which employs approximately 130,500 workers, or approximately 5.5 percent of the provincial workforce. Each year, transportation workers on average sustain just under 4,100 time-loss injuries. The average claim duration is 12 weeks, costing approximately \$25,100. The injury rate for the transportation subsector is twice the provincial average.

Safety Performance: How Does the Auto Towing CU Compare?

There are just under 80 time-loss injuries in the Auto Towing CU each year. On average, these workers miss 12 weeks of work, with claim costs totalling \$26,400. This figure does not represent the true cost of the incident, which may be two to four times higher. With an injury rate of 6.8, approximately 1 in 15 workers in the Auto Towing CU will sustain a time-loss claim injury each year. This is more than 50% higher than the Transportation and Related Services Subsector, and three times higher than the provincial average.

Injury Statistics: 5-Year Average (2012 – 2016)

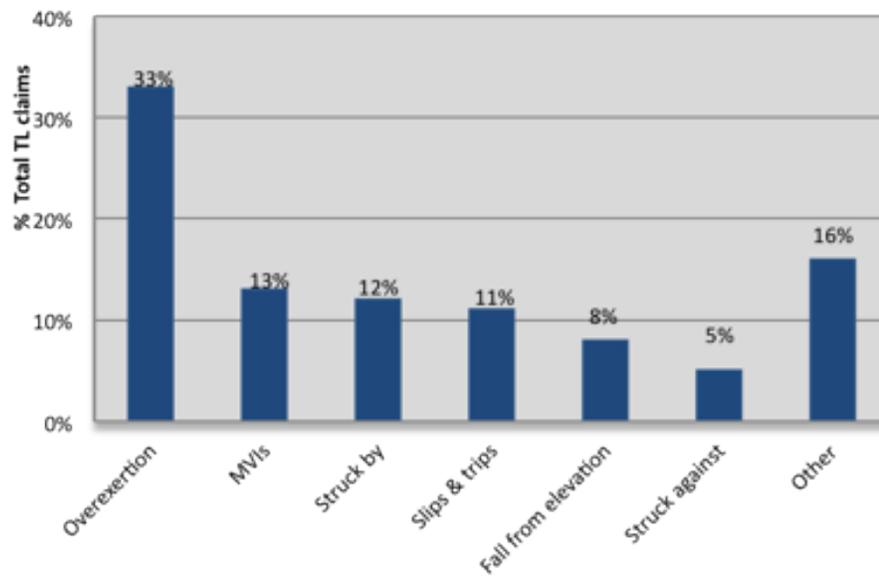
	Auto Towing CU	Transportation & Related Services Subsector (7320)	All BC Employers
Time-loss claims	78	4,060	48,400
Days lost	4,600	242,000	2.24 million
Total claim costs	\$2.1 million	\$102.1 million	\$885.2 million
Injury rate*	6.8	4.4	2.2

* 2015 Injury Rate

Typical Workplace Incidents in Auto Towing

- Driver strained lower back when they were lifting a dolly off of its mounting bracket.
- Tow operator sustained head injuries when they were struck by a break-over-bar.
- Tow operator sustained head injuries when they were hit by a passing vehicle.

How Are Workers in Auto Towing Getting Hurt?



Who is Getting Hurt in the Industry?

- Tow truck operators — 80 percent
- Automotive service technicians — 7 percent
- Other automotive mechanical installers and servicers — 5 percent
- Other — 8 percent

(Source: WorkSafeBC)

Part III

This section includes information on the following:

- OHS Legal Responsibilities for employers, supervisors and workers
- Meeting Due Diligence

Your Legal Responsibilities to Occupational Health and Safety

Employer Responsibilities

Employers have health and safety responsibilities under the *Workers Compensation Act* (the Act) and *Occupational Health and Safety Regulation* (OHS Regulation). These responsibilities include:

- Ensuring the health and safety of their workers and other workers present at the workplace;
- Establishing occupational health and safety policies and an OHS program;
- Providing general direction to management, supervisors, and workers about their responsibilities and roles in providing a safe and healthy workplace;
- Providing specific direction and delegate authority to those responsible for health and safety;
- Consulting and cooperating with individuals carrying out health and safety duties including joint committee members, OHS representatives, and WorkSafeBC prevention officers;
- Providing workers with information, instruction, training, and supervision necessary to protect their health and safety;
- Providing supervisors with the support for health and safety training;
- Providing and maintaining Personal Protective Equipment (PPE), devices, and clothing, and ensuring they are properly used;
- Ensuring adequate first aid;
- Conducting regular inspections and fixing reported problems;
- Investigating incidents where workers are injured or equipment is damaged;
- Reporting all injuries to WorkSafeBC that required medical attention and submitting necessary forms.

Employers enable and set the tone for workplace safety. Strong leadership and commitment to improve health and safety, backed by action, is key to an effective safety program that helps to keep workers safe.

Supervisor Responsibilities

Supervisors have health and safety responsibilities under the Act and OHS Regulation. A supervisor provides instruction, direction, and controls workers in the performance of their duties. A supervisor can be any worker — an owner, management, or staff — who performs these duties, whether or not he or she has the title of supervisor. (Depending on the circumstance, a supervisor may also be a worker). Supervisor duties include:

- Ensuring the health and safety of all workers under their direct supervision;
- Ensuring that workers under their supervision are made aware of known or reasonably foreseeable health and safety hazards;
- Knowing and ensuring that applicable WorkSafeBC requirements are being followed;
- Consulting and cooperating with joint committee members or worker health and safety representatives, and co-operate with others carrying out occupational health and safety duties (including WorkSafeBC prevention officers);
- Ensuring that the appropriate PPE and clothing are available, properly inspected, maintained, and worn;
- Ensuring adequate first aid;
- Conducting regular inspections and fixing reported problems.

Supervisors play a critically important role in keeping workers safe and should give workplace health and safety the same priority as productivity.

Workers Responsibilities and Rights

Workers have responsibilities for their own health and safety and that of other workers. These include:

- Learning and following safe work practices and procedures;
- Being alert to hazards and immediately reporting hazards to their supervisor;
- Using the protective clothing, devices, and equipment provided;
- Performing work in a safe manner and not engaging in “horseplay” or working while impaired by alcohol, drugs, or other causes.

All workers have four basic health and safety rights:

- The right to know (orientation and training, all work-related hazards);
- The right to participate in OHS at the workplace;
- The right to refuse work that they have reason to believe would create an undue hazard;
- The right to no discrimination for refusing to do unsafe work.

For more information on the responsibilities of other workplace parties, visit www.WorkSafeBC.com.

Meeting Due Diligence

According to WorkSafeBC, due diligence *“requires taking all reasonable steps to protect workers from harm. ‘All reasonable steps’ is based on the level of judgment and care that a person would reasonably be expected to do under the circumstances. An organization that actively manages health and safety and takes all reasonable steps to protect workers from harm is being duly diligent.”*

The due diligence requirements of employers includes:

- Knowing and understanding their OHS responsibilities;
- Having a process to identify and control hazards;
- Committing the necessary resources to health and safety;
- Assigning safety responsibilities to workers and providing education, information and training;
- Keeping records, including training records and records related to OHS disciplinary action;
- Having a process to review your program, either annually, or following an incident or near-miss incident.

Documentation of an effective formal or informal OHS program is required to meet the test of due diligence.

The documentation required to meet this test includes:

- The steps the employer took to control or eliminate specific hazards;
- Written safe work practices and procedures that are understood and followed by workers;
- Evidence of adequate instruction, training, and supervision.

If an OHS requirement has been violated, an employer must prove that they took all reasonable actions to ensure the health and safety of the worker or workers injured. WorkSafeBC will not impose monetary penalties or recommend prosecution if an employer was duly diligent. However, order may be issued by WorkSafeBC to correct the unsafe condition that led to the incident.

For more information on meeting due diligence, visit www.WorkSafeBC.com.

Part IV

This section includes information on the following:

- OHS program requirements for large and small employers

OHS Program Requirements

Employers are required to have an OHS program, the purpose of which is to:

- Eliminate or minimize the potential for work-related injuries, death and occupational disease;
- Identify and promptly control hazards;
- Support safe work behaviors;
- Deal effectively with any incidents;
- Ensure minimum compliance with WorkSafeBC requirements.

A business with a smaller workforce requires an “informal” OHS program. An informal program includes, *at minimum*:

- Effective orientation, training, education and supervision of workers;
- Regular inspections and corrective actions;
- Monthly meetings with workers that focus on correcting unsafe conditions and practices;
- Making and retaining written OHS records;
- First aid provisions (requirements are listed in the OHS Regulation);
- Incident investigations that meet minimum compliance requirements.

A WorkSafeBC prevention officer may require some smaller workplaces to update their program from an informal program to a formal program (see below) in situations when there is:

- High-risk work and/or a high number of injury claims;
- Serious injuries or fatalities;
- Repeat non-compliance with the Act and OHS Regulations.

A “formal” OHS Program is required when there is a workforce of 20 or more workers, and at least one workplace at which there is a moderate or high risk of injury or a workforce of 50 or more workers. Elements of a formal OHS program include the following:

- A written safety policy;
- Supervision;
- Written safe work practices or procedures;
- Workplace inspections;
- Effective orientation, training, and education of workers;
- Joint OHS committee (or a worker OHS representative in firms with more than nine but fewer than 20 regularly employed workers);
- First aid provisions (requirements are listed in the OHS Regulations);
- Management meetings that focus on safety;
- Investigations that meet minimum compliance requirements;
- Maintenance of OHS records and statistics.

Written Safety Policy

An important part of a safety program is a health and safety policy that is specific to your workplace. An effective OHS policy is a signed statement of an employer’s commitment to workplace health and safety and includes language describing:

- The employer’s commitment to protect workers;
- Policy goals and objectives (eg. preventing injuries, complying with the Act and OHS Regulations);
- OHS responsibilities and worker rights.

All workers should be made aware of policy and its importance. The policy should be reviewed annually, or following a workplace incident.

For more information on developing an OHS policy visit www.WorksafeBC.com or www.ara.bc.ca/about-education-training/ara-health-safety.

Supervision

Supervision activities include:

- Ensuring workers are properly trained and observing safety actions and behaviours after training;
- Making informal inspections to ensure practices and procedures are being followed;
- Enforcing safety rules, practices, and procedures;
- Conducting informal discussions (crew talks) to discuss specific safety issues.

Safe Work Practices and Procedures

A written safe work practice provides general guidance about a work-related task. A written safe work procedure is different from a practice in that it provides step-by-step instructions to guide workers when initiating and completing a specific work process. The OHS Regulations requires written safe work procedures for a number of activities, including:

- Fall protection;
- Personal protective equipment;
- Violence in the workplace;
- Emergency evacuation;
- Chemical spills clean-up;
- Working alone or in isolation.

Depending on the workplace, other safe work procedures or practices may be required:

- Electronic device/hands-free policy;
- Radio-use policy;
- Vehicle use policy;
- Practices discussed in this document, where applicable.

Not all tasks require practices or procedures. When determining what is required, consider the following:

- The requirements of the OHS Regulations;
- Hazards present at the workplace;
- The number of workers performing the task;
- The severity of injuries that might result if practices or procedures are not followed;
- Recommendations from inspections or investigations.

Workplace Inspections

A thorough workplace inspection helps workplace parties identify and document all of the potential hazards that may harm your workers and subcontractors. Inspections may be scheduled on a daily, weekly, or monthly basis depending on the types of hazards and other requirements (eg. manufacturer's instructions or compliance requirements set out in the OHS Regulations).

General inspection categories include:

- Regular inspections (eg. the workplace, equipment, and work methods that might cause injury);
- Equipment inspections (eg. vehicles, tools, and equipment);
- Special inspections (required after an incident or malfunction).

When conducting an inspection, consider the following criteria:

- On-road hazards;
- Non-routine operations, maintenance, or changes in schedules;
- Previous first aid incidents, time-loss incidents, and near misses;
- Injury information provided by WorkSafeBC, the ARA, and health and safety associations.

When conducting your inspections, consult and involve your supervisors, workers and subcontractors, joint safety committee member, or safety representative. Promptly respond to any workplace health and

safety issues brought to your attention.

Orientation, Education, and Training

Employers are required to provide a health and safety orientation to a young or new worker before they begin their work duties. Information that must be addressed and documented during the orientation and training includes the following:

- Supervisor's name and contact information;
- The employer's responsibilities to safety under the Act and OHS Regulations;
- The young or new worker's OHS rights and responsibilities;
- Workplace OHS practices and/or procedures (eg. working alone, violence in the workplace, emergency situations, and PPE);
- Workplace hazards and how to report unsafe conditions;
- Location of first aid facilities and how to request first aid;
- Instruction and demonstration of the work task or work process;
- WHMIS information, where applicable;
- Contact information for the health and safety committee or safety representative.

For more information on young and new worker orientations, visit: www.ara.bc.ca/about-education-training/ara-health-safety.

Employers must ensure that every worker receives instruction on how to work safely. This is usually done through a combination of education and training.

Education generally refers to classroom instruction that can include lectures, discussions, videos, or online tutorials. Training generally refers to hands-on, job-specific instructions provided individually or in small groups to workers. Following training sessions, workers should be able to demonstrate to their supervisors that they can perform specific tasks safely.

Joint Occupational Health and Safety (OHS) Committee

A joint OHS committee — comprised of worker and employer representatives — meets monthly to identify any health and safety problems. The legal duties of the joint committee include:

- Identifying unsafe situations and making written recommendations to the employer;
- Promptly responding to health and safety issues;
- Consulting on issues related to occupational health and safety, including changes to work processes;
- Participating in inspections, investigations, and inquiries;
- Reporting on the effectiveness of the committee.

Note: for smaller operations, the worker safety representative has similar duties to that of a Joint OHS committee.

For more information on workplace inspections or joint OHS committees, visit www.WorkSafeBC.com.

First Aid Provisions

Employers are responsible for determining and providing a minimum level of first aid in the workplace. This information is set out in the *OHS Regulation Schedule 3-A: Minimum Levels of First Aid*.

Management Meetings

A formal OHS program requires management to meet periodically to review health and safety activities, incidents, and trends. Such meetings can be used to:

- Review existing policies and procedures;

- Review feedback from workers;
- Consider reports and information or written recommendations provided by the joint OHS committee;
- Address questions or concerns brought directly to management;
- Review reports and industry OHS information.

Incident Investigations

The purpose of an incident investigation is to:

- Identify the cause or causes of workplace incidents and near misses;
- Prevent similar events from reoccurring;
- Compliance with WorkSafeBC requirements.

Employers are responsible for investigating certain incidents or near-misses that take place in the workplace:

- Incidents that result in injury to a worker requiring medical treatment;
- Incidents in which a worker is injured or killed;
- Incidents in which no one is hurt but equipment or property is damaged;
- “Near-misses”: incidents that could have resulted in a serious injury, death, or property damage in similar circumstances.

It is recommended that incident investigations be carried out by persons knowledgeable about the work.

An incident investigation must involve:

- A worker representative;
- An employer representative;
- Safety representative or members of the joint OHS committee.

Employers are responsible for completing up to four separate incident reports — each representing the investigation’s status at a specific point in the process. These report types include:

1. Preliminary investigation
2. Interim corrective actions
3. Full investigation
4. Final corrective actions

1. Preliminary investigation

Employers must complete a preliminary investigation and produce a report within 48 hours of an incident.

2. Interim corrective actions

Between an incident and the conclusion of the full investigation, an employer must take all actions necessary to prevent a repeat of the incident. Interim, documented corrective actions during this period may include a full or partial shutdown of the worksite, removal of equipment, or reassignment of workers to other duties.

3. Full investigation

A full written investigation — which must be completed within 30 days of the incident — identifies the underlying factors that led to the incident. (eg. what factors made the unsafe condition possible?)

4. Final corrective actions

Once the full investigation has been completed, an employer must prepare a final corrective action report that describes:

- The unsafe conditions that led to the incident;
- What corrective action is necessary;
- The steps the organization will take to implement those actions.

Note : the aforementioned incident investigation reports must contain the information required by WorkSafeBC Prevention Policies D10-175-1 and D10-176-1. For information on these requirements, visit www.WorkSafeBC.com.

When to Notify WorkSafeBC

Employers must immediately notify WorkSafeBC of any serious incidents that:

- Resulted in serious injury to a worker or the death of a worker;
- Involved a major structural failure or collapse of a crane or hoist, or major release of a hazardous substance.

Following an incident or near miss, a WorkSafeBC investigation may be conducted. Findings from WorkSafeBC investigation reports are posted online and are intended to help employers and workers understand the underlying factors that contributed to workplace incidents so similar incidents can be prevented. In addition, the investigation process will determine if enforcement action, such as imposing an administrative penalty or proceeding to prosecution, is appropriate.

For more information on incident investigations, visit www.WorkSafeBC.com.

Records and statistics

Required OHS program records may include:

- Inspection reports and records of corrective actions taken;
- Preliminary investigation, interim corrective actions, full investigation, and final corrective action reports;
- Worker orientation and training records for workers and training records for supervisors;
- Records of safety meetings and crew talks;
- Joint committee meeting reports showing steps taken to address health and safety issues;
- Equipment logbooks and maintenance records;
- First aid records.

For larger employers, injury statistics (such as near misses, first aid only, health care only, and time-loss injury) may be useful for identifying trends and for measuring the effectiveness of the OHS program.

Part V

This section includes information on the following:

- Risk Assessment
- Ergonomic Risk Assessment
- Traffic Risk Assessment
- Hazard Controls
- Identifying hazards through a job task analysis



Risk Assessments

Employers need to identify the specific hazards that exist at their workplace (or workplaces) and how these hazards may put their workers at risk. A risk assessment is a process to help determine:

- *Who* may be harmed by specific workplace hazards;
- *How* they may be harmed;
- *What* control measures are required to eliminate or control the harm.

Specific risk assessment requirements are defined in the OHS Regulations. A number of required processes are forms of risk assessment, such as workplace inspections and incident investigations discussed previously.

In most situations, employers who operate small businesses, the organization should conduct a risk assessment with input and participation from their workers. Risk assessments should be reviewed whenever new equipment, materials, or work processes are introduced, or following a near-miss incident or injury. At minimum, employers must update the assessment annually.

When conducting your risk assessment, consider the following:

- Workers and their different job functions;
- New and young workers, temporary workers, workers who work alone, contractors, maintenance workers;
- The kinds of injury or illness which could be suffered;
- Possible injury severity;
- The length of time exposed to the hazard.

Ergonomic Risk Assessment

Work-related musculoskeletal injuries — injuries that can affect muscles, tendons, ligaments, nerves, blood vessels, and joints of the neck, shoulders, arms, wrists, legs, and back — are a leading cause of time-loss claims in the auto towing and recovery industry and require special consideration. In addition, the OHS Regulations require that an employer must identify factors in the workplace that may expose workers to a risk of musculoskeletal injury. An employer must eliminate, or, if that is not possible, minimize the risk of musculoskeletal injuries (MSI) to workers.

Poor body mechanics and posture are a leading cause of workplace incidents for towing and recovery operators. While operators will often associate a back injury with a specific heavy lift or action, these injuries typically are more commonly the result of a combined exposure to improper lifting or movement and a weakening musculoskeletal support due to repetitive small traumas.

Knowing and understanding the risk factors for musculoskeletal injury will help you employ strategies to reduce the possibility of those injuries. When planning your work there are several things to consider:

- Awkward postures (reaching, lifting, sitting, twisting, or bending);
- Forceful or heavy lifting;
- Repetitive lifting of awkward objects or equipment;
- Poor design of a workstation;
- Maintaining bent postures and poor body mechanics;
- Poor weather or environmental conditions;
- Poor footing such as slippery surfaces or constrained posture;
- Equipment and truck vibrations;
- Fatigue or poor health and physical condition.

Lifting a load that is too heavy increases the risk of injury. Therefore, an operator must be able to assess the load or the job and be able to determine if they can perform the task. Determining safe lifting limits can be challenging as there is no standard; determining safe limits usually depends on any number of factors including:

- Physical condition of the operator;
- Body posture;
- Proximity to the load;
- Lift height;
- Motions required (eg. twisting, bending);
- Frequency of the lift.

For typical lifts it is recommended to:

- Estimate of the weight of an object, how the weight is distributed, the condition of the object and handholds, as well as where the object will be moved;
- Place your body close to the load: operators should place their feet close to the object and centre themselves over the load utilizing a squared stance;
- Maintain neutral and straight spine alignment;
- Lift straight in a smooth manner; lift from the legs rather than from the back or upper body;
- Avoid twists, turns, and jerking motions. If turning must be made do so in small steps.

For non-typical lifts or lifting of awkward sized objects such tires, batteries, tow bars, wheels, and/or other towing equipment include the following techniques:

- Kneeling in front of the object;
- Leaning the object onto the knee;
- Sliding the object up onto the knee;
- Sliding the object onto the other leg while keeping the object close to the body;
- While standing, keep the object close to the body;
- Roll tires and wheels rather than lifting them.

Towing and recovery operators routinely find themselves in environments that will involve placing themselves in awkward positions. Combining these awkward positions with lifting or other physical actions increases the risk of injury. Operators typically have equipment available to them to assist them with performing their tasks. However, poorly maintained equipment increases the risk of injury and poses serious hazards if the equipment being used to assist or carry a load falls. Therefore, the routine inspection of equipment is a critically important.

Traffic Risk Assessment

Traffic places tow operators at significant risk. Operators must be able to survey their environment and anticipate dangers to themselves and to others.

Prior to starting work, and even during the course of work, survey the surrounding area to observe potential hazards such as:

- Road and weather factors (eg. road type, alignment, intersections, speed, pavement conditions)
- How fast are vehicles travelling?
- Are there intersections or driveways to consider?
- What is the weather and lighting like?
- How well can approaching traffic see the work area?
- What is the pavement condition? Is it wet? Icy? Dry?
- Restrictions (eg. tunnels, bridges, ditches, rock fall).
- Areas that will have an effect on a safe escape route (planned area of refuge in the event of an out of control vehicle).
- Utilities (overhead and underground).

After determining the potential hazards, evaluate the risk to workers and the public in relation to the work processes. When evaluating risk, ask yourself these two questions:

- Is this an immediate safety threat?
- How severe could the damage or injury be?

Determine measures that would reduce or eliminate the hazard. For example, in the case of a traffic hazard, the use of signs and cones to create a work zone will help keep traffic away from the worker. Some questions to ask are:

- Has this control solved the problem?
- Has the public been adequately warned about the condition on the road (workers present, lane closed, etc.)?
- Can the public see the cones on the roadway in time to change lanes? Are they placed at a gradual rate in accordance with standards?
- Are any other measures, like signs, or TCPs (Flaggers) required?

The main way to control traffic hazards on the roadway is the effective placement of traffic control devices. These include cones, signs, barricades, flashing lights, flaggers, any other item that helps warn drivers of a change in the road circumstance.

Risk Assessment for Brief or Emergent Duration Work

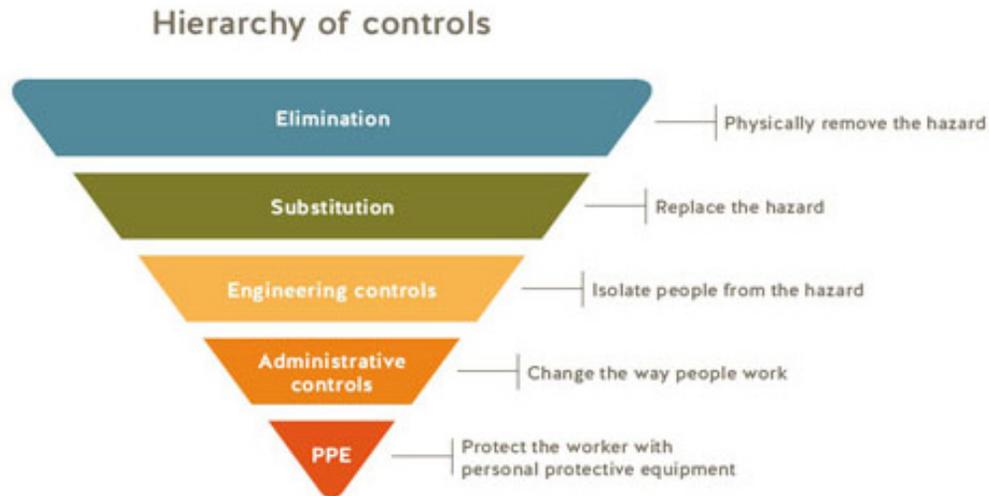
Risk Evaluation Category	Risk Criteria	Criteria Met?										
1. Work Duration	Can the work be completed in less than 15 minutes?	Yes/No										
2. Sight Distance Distance from parked location to the furthest point that can be seen on the road.	For the posted Speed limit, is the minimum sight distance met? <table border="1" style="margin-left: 20px;"> <tr> <td>Speed Limit (km/h)</td> <td>50-70</td> <td>80-90</td> <td>100-110</td> <td>120</td> </tr> <tr> <td>Minimum Sight Distance (m)</td> <td>100</td> <td>170</td> <td>250</td> <td>300</td> </tr> </table>	Speed Limit (km/h)	50-70	80-90	100-110	120	Minimum Sight Distance (m)	100	170	250	300	Yes/No
Speed Limit (km/h)	50-70	80-90	100-110	120								
Minimum Sight Distance (m)	100	170	250	300								
3. Traffic Volume	Is the traffic volume in lanes that will be entered by workers estimated to be less than 5 vehicles per lane per minute?	Yes/No										
4. Environmental Conditions	Is visibility unrestricted (no fog, blowing snow, etc.) and are road conditions not slippery?	Yes/No										

- Answers to all risk criteria questions are *Yes*: no traffic control devices are required.
- Answers to one or two risk criteria questions is *No*: traffic control devices may be installed to minimize hazards.
- Answers to three or four risk criteria questions are *No*: additional traffic control measures are required.

For more information on risk assessments visit www.WorkSafeBC.com or www.ara.bc.ca.

Hazard Controls

As discussed in the “OHS Responsibilities” section of this document, employers must take steps to ensure the safety of their workers and other workers present at the worksite. Employers must eliminate (where possible) or minimize workplace hazards. To do this, it is recommended that employers follow the health and safety “hierarchy of controls.” The hierarchy lists safety controls in order of their effectiveness:



Elimination

Identifying ways to completely eliminate a workplace hazard is the most effective way to ensure worker safety.

Substitution

If eliminating a workplace hazard is not possible, then substitution — which involves replacing the material or process with a less hazardous one — should be considered next.

Engineering Controls

In the event that you cannot eliminate the hazards or substitute a safer approach, you should consider the effectiveness of implementing an “engineering control.” Engineering control may include lifting devices for dollies, guarding for where crush injuries may occur, barriers (which can include the placement of vehicles to reduce the likelihood a worker is struck near incidents), and other control measures.

Administrative Controls

Administrative (or process) controls typically involve the development and implementation of effective safe work practices and procedures. Examples of administrative controls include implementing working alone procedures and prohibiting the use of handheld electronic devices when behind the wheel.

Personal Protective Equipment (PPE)

The use of PPE, such as a suitable high-visibility vest, protective eyewear, and suitable gloves can help to reduce exposure risk.

When developing or strengthening your controls, all five types of controls should be evaluated. A combination of controls — such as engineering and administrative controls — may be effective in reducing risks.

Finally, employers need to monitor the effectiveness of their hazard controls measures. This involves:

- Conducting regular safety inspections to evaluate if the controls are effective, or if new

- hazards have been created;
- Responding to issues in a timely manner;
- Organizing monthly meetings to discuss and address workplace hazards;
- Keeping a record of your activities.

It is recommended that you involve your supervisors, workers, safety representative, or joint OHS committee member when identifying and implementing hazard controls.

Identifying Hazards Through a Job Task Analysis

A job task analysis (also known as a job hazard analysis) is a process to help identify hazards that exist within each job and select the appropriate safety control measure (or combination of measures) to eliminate, where possible, or minimize the risk to workers.

When conducting a job hazard analysis consider the following process:

- Break each job down by duties and tasks;
- Identify, assess, and catalogue hazards and the risks they pose to the worker;
- Determine if a control measure (or measures) can eliminate the hazard; if the control measure or measures can't eliminate the hazard, develop a safe work practice or step-by-step safe work procedure;
- Provide education, information, training, and supervision to workers;
- Providing effective supervision.

Part VI

This section includes information on the following:

- Risk Matrix
- Industry Specific Hazard Table



Risk Matrix — An Approach to Ranking Hazards and Prioritizing Actions

Risk, as defined by WorkSafeBC, means the chance or likelihood of injury or occupational disease occurring.

Risk is evaluated based on the likelihood of occurrence. Risk factors are found by multiplying the **Likelihood** by the **Consequences** to equal the final **Risk Rank**:

$$\text{Likelihood} \times \text{Consequences} = \text{Risk Rank}$$

Hazard identification and risk assessment is taking a known hazard — like traffic — and evaluating the likelihood of that hazard occurring. Known hazards are analyzed for their level of risk using the following risk matrix to assign a number called the **Risk Rank**. Hazards can then be prioritized based on their risk rating.

1. **High-risk** activities must be addressed immediately and reviewed often to ensure control measures are accurate and adequate.
2. **Moderate-risk** activities are addressed once all the high risk activities have adequate control measures in place.
3. **Low-risk** activities are then reviewed and control measures put in place to address them.

Risk Matrix	Consequences	Low Impact	Serious	Catastrophic
Likelihood	Ranking	1	2	3
Remote	1	1	2	3
Possible	2	2	4	6
Probable	3	3	6	9

	1-3 = Low Risk
	4 = Moderate Risk
	6-9 = High Risk

This matrix is an industry supported method for assessing risks developed in consultation with the **ARA's towing and recovery technical advisory committee**. The following table details common hazards and their associated risk ranking based on likelihood of occurrence and degree of consequences. The table references safe work guidelines in order to reduce the likelihood of a hazard occurring. You may use the table as quick reference chart.

Industry Specific Hazard Assessment Table

INDUSTRY SPECIFIC HAZARD ASSESSMENT					
Factor	Likelihood	Consequences	Recommended Controls	Rank	Risk Level
Traffic	3	3	Utilize the Brief and Emergent Guidelines for work service calls that can be accomplished in <i>under 15 minutes</i> ; if not, proceed with traffic control protocols prior to proceeding with vehicle recovery.	9	HIGH 
Daylight Operation <i>Sun Impacting Approaching Traffic</i>	3	3	A traffic control plan will be required to mitigate restricted visibility conditions. ➤ <i>Sun impacting approaching traffic.</i> ➤ <i>Restricted visibility weather related.</i>	9	HIGH 
Night Time <i>Restricted Visibility</i>	3	3	A traffic control plan will be required to mitigate restricted visibility conditions. ➤ <i>Can you delay the recovery until daylight?</i> ➤ <i>Is additional lighting required?</i> At night, any work taking longer than 15 minutes is considered long-duration and will require a traffic management plan.	9	HIGH 
High Traffic Volume	3	3	A traffic control plan may be required due to high traffic volume conditions.	9	HIGH 
Hazardous Materials	3	3	Emergency Services must assess the area and verify that the site is secure and safe to proceed with recovery. Refer to TDG and WHMIS Regulations.	9	HIGH 
Energized Utilities	3	3	Emergency Services must assess the area and verify that the site is secure and safe to proceed with recovery. ➤ <i>A BC One Call should be made if there is a possibility of underground utilities being involved in the recovery 1-800-474-6886.</i> ➤ <i>Maintain safe limits of approach.</i>	9	HIGH 
Steep Slope and Embankment Recovery	3	3	A Traffic Control Plan may be required prior to proceeding with vehicle recovery. A Fall Protection Plan may also be required.	9	HIGH 

Industry Specific Hazard Assessment Table cont.

Factor	Likelihood	Consequences	Recommended Controls	Rank	Risk Level
Complex Recovery	3	3	Establish a Traffic Control Plan prior to proceeding with vehicle recovery. <ul style="list-style-type: none"> ➤ <i>Assess the scene and plan your recovery.</i> ➤ <i>Mitigate identified hazards.</i> 	9	HIGH 
Water Recovery	3	3	If recovery requires workers to be at risk of entrapment or depths greater than 1m then professional certified commercial divers who have completed the Occupational Scuba Program may be required to assist in the recovery. <ul style="list-style-type: none"> ➤ <i>If water is deeper than 1m or moving, refer to Complex Recovery Guideline 22.</i> 	9	HIGH 
Non-Public Road/Dirt Road	3	3	It is important that the dispatcher acquire as much information about the recovery as possible before sending an operator to the scene. Doing so will allow the operator to more thoroughly conduct a scene assessment prior to driving out to the scene. <ul style="list-style-type: none"> ➤ <i>Working Alone or in Isolation Protocols may be required.</i> 	9	HIGH 
Drive-Shaft Removal	2	4	Always wear PPE when removing a drive-shaft and follow proper procedures. <ul style="list-style-type: none"> ➤ <i>Serious injury and even death can result from an incorrect drive-shaft removal.</i> 	8	HIGH 
Service Calls to Include Tire, Fuel, Unlock, Boost, Won't Start	2	2	Utilize the Brief and Emergent Guidelines for service calls that can be accomplished in under 15 minutes; if not proceed with traffic control management prior to proceeding.	4	Moderate 

Industry Specific Hazard Assessment Table cont.

Factor	Likelihood	Consequences	Recommended Controls	Rank	Risk Level
Rollover Recovery	2	2	Industry standard training required. The position or placement of a wrecker should be determined by the operator by a) calculating the least amount of resistance and b) the best line of sight. <ul style="list-style-type: none"> ➤ <i>Traffic Control will be required if recovery takes longer than 15 minutes or the recovery encroaches on the travel portion of the roadway.</i> ➤ <i>If Traffic Control is required, establish a Traffic Control Plan prior to proceeding with vehicle recovery.</i> 	4	Moderate 
Deck Loading & Transport	2	2	Always follow safe driving guidelines.	4	Moderate 
Wrecker Loading & Transport	2	2	Always follow safe driving guidelines.	4	Moderate 
Biological Hazard Materials	2	2	Emergency Services must assess the area and verify that the site is secure and safe to proceed with recovery. <ul style="list-style-type: none"> ➤ <i>An exposure control plan may be required.</i> 	4	Moderate 
Motorcycle Loading & Transport	2	2	Never allow a customer to assist with loading or unloading of a motorcycle. <ul style="list-style-type: none"> ➤ <i>If assistance is required request a second person to the scene.</i> 	4	Moderate 
Highway Recovery	2	2	Establish a Traffic Control Plan prior to proceeding with vehicle recovery. <ul style="list-style-type: none"> ➤ <i>Assess the scene and plan your recovery.</i> ➤ <i>Mitigate identified hazards.</i> 	4	Moderate 
Road Conditions	1	3	Reduce likelihood of injury by attending to spills and debris prior to proceeding with recovery or loading of vehicle.	3	Low 
Weather/ Reduced Visibility	1	3	Utilize traffic management in situations when visibility has been reduced due to weather conditions.	3	Low 

Industry Specific Hazard Assessment Table cont.

Factor	Likelihood	Consequences	Recommended Controls	Rank	Risk Level
Heat Stress	1	2	Workers to follow the company Head Stress Exposure Control Plan when working in conditions above 34°C.	1	Low 
Cold Stress	1	1	Workers to follow the company Cold Stress Exposure Control Plan when working in conditions could cause a worker's core body temperature to fall below 36°C.	1	Low 

Part VII

This section includes information on the following:

- Safe Work Practices and Procedures



Safe Work Practices and Procedures

Dispatch Guidelines for Recovery/Tow

Every recovery begins with the dispatcher taking the initial request. It is important that the dispatcher conveys as much relevant information to the operator before he/she arrives at the scene.

- When possible, the dispatcher should gather as much information about the vehicles(s) being recovered. This will include the make and/or model/type of vehicle; the location of the vehicle and proximity to the road (on-road/off-road/off on the shoulder, etc.).
- Record the position of the vehicle and side of traffic (facing traffic, right-side of traffic, other side of traffic, etc.).
- Ask what's wrong with the vehicle:
 - a) Are there keys with the vehicle?
 - b) Are emergency services on the scene?
- Check to see if the vehicle is empty or loaded (this could affect the vehicle's GVW). Record all other pertinent information that will be helpful in assisting the tow truck operator.

Sub-Contractor Qualifications

Sub-contractors are often brought in to assist the tower with a recovery. The towing company retaining a sub-contractor has a responsibility to ensure due diligence by completing tasks that include:

- Obtaining a WorkSafeBC Clearance letter;
- Obtaining and retaining copies of professional certifications, qualifications and training records;
- Reviewing safe work practices and examples of risk assessments provided by the sub-contractor;
- A scene review with follow-up notes (can be included with the Towing & Recovery Scene Risk Assessment and Site Safety Plan).



Hazardous Materials Exposure

OHS Regulatory Requirements
The Act:
The OHS Regulation: OHS5.2
WorkSafeBc Prevention Policies: R5.54-1
WorkSafeBC Guidelines:
WorkSafeBC Standards:

Employer responsibilities concerning hazardous materials include:

- Identifying any hazardous materials that workers may be exposed to;
- Developing and implementing a written hazardous materials control plan;
- Informing workers about how they may be exposed to hazardous materials or warning signs that hazardous materials are present;
- Educating, training, and supervising workers on safe work procedures, including WHMIS, material handling, and the proper use of personal protective equipment (PPE) such as nitrile gloves and appropriate safety eyewear.

Worker responsibilities include:

- Learning and following safe work practices and procedures;
- Being alert to hazards and immediately reporting hazards to their supervisor;
- Performing work in a safe manner.

Common scenarios include:

- Tractor-trailer crashes involving a spill of controlled or hazardous materials;
- Crash scenes where gas, oil, or fluids leak from the vehicle.

Hazardous materials include, but are not limited to, the following:

- Oil, gasoline, and automotive fluids;
- Controlled and hazardous products;
- Unidentified materials.

Operators must follow written safe work procedures when working near controlled, hazardous, or unidentified materials. These procedures may include the following actions:

- Activating beacon lights within 500 meters of the site;
- Look for any warning signs of hazardous materials or 'hazmat' activities;
- Contacting the scene co-ordinator (typically fire or police) and following their instructions;
- Notifying their supervisor and requesting instructions;
- Taking steps to ensure their safety and the safety of others; this may include refusing unsafe work;
- Parking in a safe location out of the way of emergency vehicles;
- Wearing (and properly handling) suitable PPE, where required;
- Notifying the scene co-ordinator of unidentified materials;
- Following disposal procedures for contaminated materials, such as nitrile gloves;
- Seeking immediate first aid and medical attention after an occupational exposure;
- Reporting exposure incidents to their supervisor;
- Avoiding actions that can damage the tow vehicle;
- Not creating unnecessary hazards for other workers or the public;
- Reporting spills of gasoline or diesel over 100 litres to the Provincial Emergency Program (PEP).

Biological Hazards Exposure

OHS Regulatory Requirements
The Act:
The OHS Regulation: OHS6.34
WorkSafeBC Prevention Polices: R5.54-1
WorkSafeBC Guidelines: G6.34-1
WorkSafeBC Standards:

Common scenarios:

- Serious crash scenes that resulted in bodily injuries;
- Used syringes in towed or recovered vehicles.

Employer responsibilities concerning biological hazardous materials include:

- Identifying biological hazards that workers may be exposed to;
- Developing and implementing a written exposure control plan;
- Informing workers about how they may be exposed to biological hazards;
- Educating, training, and supervising workers on safe work procedures, including hand washing and the proper use of personal protective equipment (PPE);
- Informing workers of any vehicle stored in the yard that may contain biological hazards;
- Instructing workers to seek medical attention after an occupational exposure.

Worker responsibilities include:

- Learning and following safe work practices and procedures;
- Being alert to hazards and immediately reporting hazards to their supervisor;
- Performing work in a safe manner.

Operators must follow written safe work procedures when potential biological hazards are involved.

These procedures may include the following actions:

- Attending education and training sessions;
- Notifying their supervisor about the presence of biological hazards and requesting instructions, when needed;
- Taking steps to ensure their safety and the safety of others; this may include refusing unsafe work;
- Contacting the scene co-ordinator (typically fire or police) and following their instructions;
- Wearing (and properly handling) suitable PPE, where required;
- Seeking immediate first aid and medical attention after an occupational exposure;
- Recording on the Towing and Recovery Scene Risk Assessment and/or Site Safety Plan any emergency services that are involved and any instructions/direction provided by emergency services personnel;
- Informing the dispatcher or supervisor when transporting any vehicle that may contain biological hazardous material back to your storage facility;
- Parking the vehicle in a secure location and mark 'bio-hazard' on the vehicle's window;
- Reporting exposure incidents to their supervisor.

Work Near Energized Utilities

OHS Regulatory Requirements
The Act:
The Regulation: OHS19.24 & OSH19.24.1 & Table 19-1A
WorkSafeBC Prevention Policies:
WorkSafeBC Guidelines:
WorkSafeBC Standards:

Employer responsibilities include:

- Identifying energized utilities that workers may be exposed to;
- Developing and implementing safe work procedures;
- Informing workers about how they may be exposed to energized utilities;
- Educating, training, and supervising workers on safe work procedures, including keeping them, their vehicles, and their equipment a safe distance from energized utilities or environments.

Worker responsibilities include:

- Learning and following safe work practices and procedures;
- Being alert to hazards and immediately reporting hazards to their supervisor;
- Performing work in a safe manner.

Operators must follow safe work procedures when energized utilities are involved. These procedures may include the following actions:

- Notifying their supervisor and requesting instructions;
- Taking steps to ensure their safety and the safety of others; this may include refusing unsafe work;
- Upon approach, remain in the vehicle and assess the scene; if downed wires are observed at the scene, move the truck to a safe distance and contact 911 immediately;
- In the event there is a potential for disruption of underground utilities or overhead energized utilities a BC One Call (604-257-1940 for Vancouver or 1-800-474-6886 outside of Vancouver) must be made;
- Follow the instructions of the scene co-ordinator;
- During recovery, operate the boom in a manner that prevents any part of the boom, load line, rigging, or load from coming within the minimum safe distance of high voltage electrical conductors or equipment.

Follow the safe limit of approach for overhead power lines

Voltage	Minimum approach distance for working close to exposed electrical equipment or conductors	
	Meters	Feet
Phase to phase		
Over 750V to 75kv	3	10
Over 75kv to 250kv	4.5	15
Over 250kv to 550kv	6	20

Extreme Weather Conditions



OHS Regulatory Requirements
The Act:
The Regulation: OHS7.27 & OHS7.33
WorkSafeBC Prevention Policies:
WorkSafeBC Guidelines: G7.27(1)
WorkSafeBC Standards:

Employer responsibilities for extreme weather conditions include:

- Conducting a risk assessment that identifies the hazards that workers may be exposed to during extreme weather conditions;
- Implementing control measures to minimize the risk to workers, including written rescue and evacuation procedures;
- Informing workers about extreme weather hazards and associated controls;
- Educating, training, and supervising workers;
- Ensuring trucks are suitably maintained and equipped for extreme weather conditions;
- Ensuring that working alone procedures are understood and followed.

Worker responsibilities include:

- Learning and following safe work practices and procedures;
- Being alert to hazards and immediately reporting hazards to their supervisor;
- Performing work in a safe manner.

Extreme weather presents unique challenges to towing and recovery operations. It can amplify existing hazards and can increase the complexity and time needed to complete recovery operations. Common scenarios include:

- Roadside assistance;

- Complex off-road recoveries;
- Complex water recoveries.

Cold weather conditions: hazards include:

- Uncontrolled motor vehicles;
- Slippery work surfaces;
- Bodily exposure (eg. frostbite and hypothermia) to cold temperatures and high winds.
- Cold water;
- Unsafe working surfaces (eg. ice covered lakes and rivers);
- Low-light environments.

Hot-weather environments: reactions to these environments (which may include high humidity) include:

- Heat cramps;
- Heat exhaustion;
- Heat stroke.

Operators must follow written safe work practices and procedures in extreme weather environments and may include the following actions:

- Conducting a thorough pre-trip of their vehicle and equipment;
- Notifying their supervisor of extreme weather conditions and environmental hazards and requesting instructions where needed;
- Taking steps to ensure their safety and the safety of other workers; this may include refusing unsafe work;
- Following working alone procedures;
- Wearing work clothing, footwear, gloves, and warm head gear suitable for the conditions;
- Wearing suitable footwear with a tread design that minimizes slipping;
- Carrying emergency supplies in good condition (see *shiftintowinter.ca* for more information on a winter emergency kit);
- Pacing your work – take regular breaks;
- Using suitable illumination at the towing or recovery scene;
- Seeking immediate first aid and/or medical attention, where needed;
- Where possible, scheduling work to minimize exposure (eg. do the hardest physical work during the coolest part of the day).

Start of Shift Inspections

OHS Regulatory Requirements
The Act:
The Regulation: OHS4.3(1) & OHS16.34
WorkSafeBC Prevention Policies:
WorkSafeBC Guidelines:
WorkSafeBC Standards:

Pre-trip inspections are required by the National Safety Code Safety Guidelines for any vehicle with a GVWR of 8200kg or greater in accordance with the Motor Vehicle Act Regulations (MVAR 37.22 (3)). In addition, Section 4.9 (2)(B) of the OHS Regulations set out requirements for start of shift inspections.

Pre-trip inspections ensure the towing vehicle and related equipment are in proper working order. Frequent inspections of all equipment and vehicles regardless of GVWR give you the opportunity to correct any problems before they can cause an incident. For vehicles with a GVWR of 8200kg or greater use the NSC

pre-trip inspection booklets. For all other vehicles and equipment use your company’s pre-trip inspection forms.

Always use a checklist when inspecting your vehicle. Inspections items should cover:

Truck

- Service brakes, including trailer brake connections and brake adjustments
- Parking brake holds at 1200 rpm
- Steering mechanism
- Lighting devices and reflectors
- Tires
- Horn
- Windshield wipers
- Rear vision mirrors
- Coupling devices
- Wheels and rims
- Emergency equipment
- Load securement devices

Equipment

- Chains
- Wire rope
- Sling and/or wheel lift
- Hydraulic cylinders and hoses
- Dollies: PSI as manufacture recommendations
- Snatch blocks
- Steering wheel tie down devices
- Wheel Chocks

In addition:

- All fluids should be part of your pre-trip inspection;
- Check all towing device controls to ensure they are in proper working condition;
- Check all winch parts including wire rope;
- Ensure all accessories are properly stored and secured so they cannot swing free when truck is in operation.

Retain records of your daily trip and maintenance inspections.

 **Wrecker Loading**

OHS Regulatory Requirements
The Act:
The Regulation: OHS4.8 & OHS16.37 & OHS16.20
WorkSafeBC Prevention Policies:
WorkSafeBC Standards:

Employer responsibilities for wrecker loading include:

- Conducting a risk assessment that identifies the hazards that workers may be exposed to during wrecker loading;
- Implementing control measures to minimize the risk to workers;
- Informing, educating, training, and supervising workers;
- Ensuring that trucks and equipment are suitably maintained and fit for purpose.

Worker responsibilities include:

- Learning and following safe work practices and procedures;
- Being alert to hazards and immediately reporting hazards to their supervisor;
- Performing work in a safe manner.

Operators must follow written safe work procedures that include the following actions:

- Inspect truck and equipment at the start of your shift. Make sure chains are not worn

- or damaged;
- Wearing suitable PPE (eg. a high visibility vest with tear-away properties);
- Activating beacon lights prior to stopping truck;
- Applying parking brake and wheel chocks to truck;
- Assessing traffic and, where needed, using cones to establish a short-duration work zone.

The Loading Procedure:

1. Secure the steering wheel to keep the front wheels of the vehicle in the straight ahead position. This will minimize the possibility that the disabled vehicle will veer out of control if it becomes dislodged from the towing device. Never rely upon the disabled vehicle’s steering wheel locking device to perform this function.
2. Always install auxiliary tow lights on the trailing end of the disabled vehicle to alert traffic when you’re stopping or turning.
3. Lift the disabled vehicle slowly, taking care to avoid sudden jolts. Watch the rear of the disabled vehicle to make sure there is no contact with the ground.
4. Light vehicles should be lifted a minimum 4 inches of clearance between the tires and the ground when using a tow sling and a minimum of 10 inches when using a wheel/under lift.
5. Never crawl underneath a suspended load.
6. Always use wheel straps when using the wheel lift.
7. Always use safety chains that are independent of the primary hook-up. Attach safety chains so they do not drag on the ground.
8. Use safety chains for all towing, short and long distance. (NEVER use safety chains for recovery work.)
9. Do a walk around inspection to check the trailing end of the disabled vehicle for ground clearance.

 **Carrier/Deck Loading**

OHS Regulatory Requirements
The Act:
The Regulation: OHS4.8 & OHS16.37 & OHS16.44 & OHS16.20
WorkSafeBC Prevention Polices:
WorkSafeBC Standards:

Employer responsibilities for carrier/deck loading include:

- Conducting a risk assessment that identifies the hazards that workers may be exposed to during wrecker loading;
- Implementing control measures to minimize the risk to workers;
- Informing, educating, training, and supervising workers;
- Ensuring that trucks and equipment are suitably maintained and fit for purpose.

Worker responsibilities include:

- Learning and following safe work practices and procedures;
- Being alert to hazards and immediately reporting hazards to their supervisor;
- Performing work in a safe manner.

Operators must follow written safe work procedures that include the following actions:

- a. Inspect truck and equipment at the start of your shift.
- b. Wear suitable PPE (eg. a high visibility vest with tear-away properties).
- c. Activate beacon lights prior to stopping truck.

- d. Applying parking brake and wheel chocks to truck.
- e. Assessing traffic and, where needed, using cones to establish a short-duration work zone.
- f. Ensure the truck wheels are chocked before operating the bed or winch.
- g. Use controls on the opposite side of traffic.
- h. Always stay clear of the bed and winch while in operation.
- i. Always secure vehicles to the bed using a four-point individual tie down in addition to recovery winch.
- j. Never haul cargo on a carrier deck unless it is tied down and secured.
- k. When loading a forklift always load from the back, never load with the forks pointing towards the cab.
- l. Always use wheel straps when using the wheel lift.
- m. Always use two safety chains independent of the tow device.
- n. Make sure the deck is in its locked position before transport.
- o. Never crawl underneath a suspended vehicle.
- p. Never climb onto a loaded deck.
- q. Never drive a vehicle on or off a deck.

Motorcycle Loading

OHS Regulatory Requirements
The Act:
The Regulation: OHS4.8 & OHS16.37 & OHS16.44
WorkSafeBC Prevention Polices:
WorkSafeBC Standards:

Employer responsibilities for carrier/deck loading include:

- Conducting a risk assessment that identifies the hazards that workers may be exposed to during wrecker loading;
- Implementing control measures to minimize the risk to workers;
- Informing, educating, training, and supervising workers;
- Ensuring that trucks and equipment are suitably maintained and fit for purpose;
- Ensuring the tow truck:
 - a) is equipped with a suitable device for the loading and unloading of a motorcycle, or
 - b) provide the operator with assistance.

Worker responsibilities include:

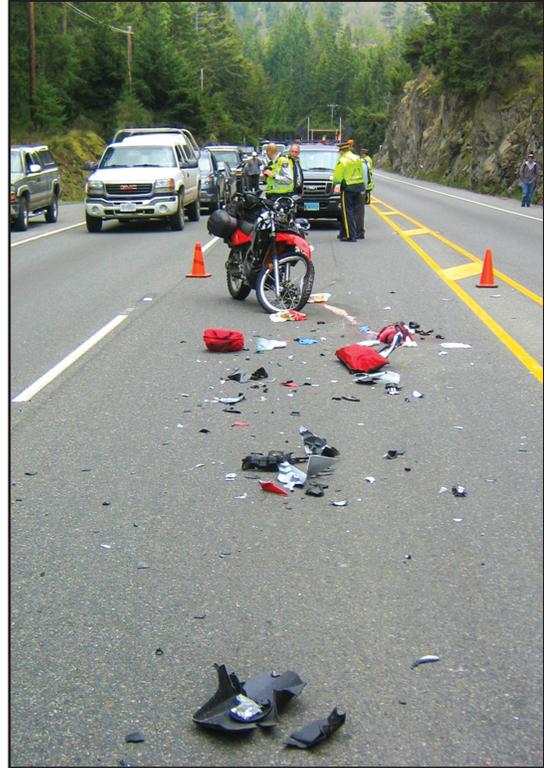
- Learning and following safe work practices and procedures;
- Being alert to hazards and immediately reporting hazards to their supervisor;
- Performing work in a safe manner.

Operators must follow written safe work procedures that include the following actions:

- Inspect truck and equipment at the start of your shift. Be aware of oil and fluids that may be on the deck's surface. An oily deck may cause slip and fall injuries and incidents.
- Wearing suitable PPE (eg. a high visibility vest with tear-away properties).
- Activating beacon lights prior to stopping truck.
- Applying parking brake and wheel chocks to truck.
- Assessing traffic and, where needed, using cones to establish a short-duration work zone.

Motorcycle loading procedure:

- a. Obtain as much information from the customer as possible during the initial dispatch.
- b. Always be prepared and place securement straps within reach distance of the load.
- c. A minimum of four securement straps must be used to secure a motorcycle. The motorcycle should be secure prior to moving the deck or the wheel lift.
- d. Never allow customers to help with any service, load, or recovery related tasks. NEVER allow any persons to stand on a carrier's deck.
- e. If necessary, call for an extra worker to assist with loading.



 **Transport**

- Check the mirrors of the tow truck to make sure you have an unobstructed view and that the disabled vehicle is tracking properly;
- Accelerate gently; avoid rapid starts;
- On long tows check to make sure that the position of the tow device has not lost its position due to any leaks in the hydraulic system. Check wheel securing straps to make sure the vehicle has not shifted position;
- When driving on uneven ground take extra precaution that you do not dislodge the disabled vehicle or damage its undercarriage;
- See additional safe driving guidelines.



Driving

Employer responsibilities for driving include:

- Conducting a risk assessment that identifies the hazards that workers may be exposed to during driving;
- Implementing control measures to minimize the risk to workers;
- Informing, educating, training, and supervising workers;
- Ensuring that trucks and equipment are suitably maintained and fit for purpose.

Worker responsibilities include:

- Learning and following safe work practices and procedures;
- Being alert to hazards and immediately reporting hazards to their supervisor;
- Performing work in a safe manner.

For more information on employer responsibilities to work-related driving visit www.RoadSafetyAtWork.ca

Information for operators:

The most important part of being a professional driver is having the right attitude. The mark of a professional driver is having self-control and never letting emotions control their actions.

The Standard Accident Prevention Formula developed by the National Safety Council will greatly reduce the chances of an incident occurring:

1. Recognize the hazard.
2. Know the defense.
3. Apply the correct response.

The key is driver awareness. You always need to be scanning for possible hazards and spot potential traffic situations ahead. You should try to learn to spot traffic situations that are developing at least 12 to 15 seconds of ahead of you. It is important to remember that no two hazards are identical. Your best defense is maintaining a safe margin of distance between you and the traffic hazard.

When behind the wheel:

- Follow all traffic laws;
- Yield right-of-way to prevent incidents;
- Be careful at intersections;
- Practice extending your field of vision;
- Maintain a margin of safety;
- When towing a vehicle allow additional room for braking;
- Adjust your driving habits to road, weather, and traffic conditions.

Braking:

When driving a tow truck with a vehicle in tow it is important to increase the distance between you and the vehicle ahead of you in order to compensate for the additional time it will take to slow to a complete stop.

To stop a vehicle, you need to see-think-do. Total stopping distance is the distance your vehicle will travel from the moment you:

See – a hazard

Think – decide to stop

Do – place your foot on the brake until you stop

Steering:

Always use your rear and side-view mirrors when reversing with a vehicle in tow. When driving, your rear

and side-view mirrors will show you the vehicles behind you and beside you, but they may not show you all the vehicles you need to be aware of. Always check your blind spots. Take a quick glance over your shoulder to make sure the lane is clear before crossing. Always use extension lights (even in daytime).

Calculating the load for safe steering:

Do not tow any vehicle that reduces the weight of your front axle of your tow truck to less than one-half of its unloaded weight.

You can calculate the maximum load for safe steering as shown below:

$$ML = \frac{1}{2} FAW \times WB / OH$$

- ML = maximum lifted load for safe steering
- FAW = the unloaded weight at the front axle
- WB = wheel base (distance between the center of the front axle and the center of the rear axle (axles))
- OH = overhang (distance from the center of the rear axle to the lift point of the towing device)

OH	Overhang
ML	Maximum Load
WB	Wheel Base
FAW	Front Axle Weight

To use this formula:

- Divide the unloaded weight at the front axle by two.
- Multiply the result by the wheelbase.
- Divide that result by the overhang.
- The number you come up with is the maximum lifted load for safe steering.

See *Driving Commercial Vehicles*: a guide for professional drivers in appendices.

Road Conditions

Traction

Traction is the friction between the tires and the road. Risk factors that affect traction include:

- **Black ice:** is actually clear and is called 'black' because it looks like the colour of the road. Black ice is extremely difficult to spot. Slow down when approaching icy areas such as shaded areas, bridges, and overpasses as these sections of road freeze sooner than others in cold weather.
- **Hydroplaning:** occurs when tires lose contact with the road and therefore lose traction. The best way to regain control of your truck when hydroplaning is to take your foot off the accelerator. **NEVER** apply the brakes. Hydroplaning does not always require heavy rainfall and can occur at speeds of 50km/h. During heavy rain, stay well back from large trucks or buses. Large tires can spray into your line of vision. If you have to pass, do it safely.
- **Snow:** whether it's falling from above or being sprayed from your vehicle or others, snow can quickly build up on your windshield and block your view. Before you go, fully defrost all windows and sweep snow from every part of your vehicle – windows, mirrors, lights, wheel wells, and hood. Remove snow and ice from the truck, deck, and equipment.

- **Fog:** when fog appears, visibility can deteriorate instantly. Fog creates an illusion of slow motion – you could be driving faster than you think you are. Ensure windows are clean during your pre-trip inspection. Watch your speedometer. Use fog lights if you have them. Don't use your high beams. Use your wipers and defrosters for maximum visibility. Use the painted road markings at the right of the road as a visual guide.

*For more information on safe driving guidelines see www.shiftintowinter.ca
For information on road conditions visit www.DriveBC.com*

Slips, Trips, and Falls

OHS Regulatory Requirements
The Act: WCA115
The Regulation: OHS4.39
WorkSafeBC Prevention Polices:
WorkSafeBC Guidelines:
WorkSafeBC Standards:

Slips, trips, and falls are a leading cause of incidents and worker injuries. Road surfaces may be compromised by water, rain, snow, ice, oil, anti-freezing compounds, or debris commonly resulting in slips, trips, and falls. All these things must be assessed and mitigated as part of your initial assessment.

Employer responsibilities for reducing slips, trips, and falls include:

- Conducting a risk assessment that identifies the hazards that workers may be exposed to during wrecker loading;
- Look for tripping hazards during inspections and take corrective action;
- Implementing control measures to minimize the risk to workers;
- Informing, educating, training, and supervising workers about these hazards;
- Ensuring that trucks and equipment are suitably maintained and fit for purpose;
- Ensure that drivers practice good housekeeping;
- Ensure that drivers have suitable footwear;
- Respond to worker reports of hazards;
- Plan for weather conditions.

Worker responsibilities include:

- Learning and following safe work practices and procedures;
- Being alert to hazards and immediately reporting hazards to their supervisor;
- Performing work in a safe manner;
- Wearing appropriate and properly maintained slip resistant footwear;
- Cleaning the cab, work area, and any vehicle walking surface before using;
- Always maintaining three-point contact when climbing in and out of the cab;
- Keeping the work area free of debris;
- Never walking if your vision is obstructed by a load you are carrying;
- Attending to minor oil spills immediately;
- Reporting slipping and tripping hazards.

For more information see [conducting a recovery scene assessment](#).

Approaching the Scene For a Service Call

Employer responsibilities for this activity include:

- Conducting a risk assessment that identifies the hazards that workers may be exposed to during service calls;
- Implementing control measures to minimize the risk to workers;
- Informing, educating, training, and supervising workers about how to safely conduct a service call;
- Ensuring that trucks and equipment are suitably maintained and fit for purpose;
- Ensure that drivers practice good housekeeping;
- Respond to worker reports of hazards;

Worker responsibilities include:

- Learning and following safe work practices and procedures;
- Being alert to hazards and immediately reporting hazards to their supervisor;
- Performing work in a safe manner.

Service call practices for the tow operator:

- Confirm the location and type of vehicle with the dispatcher;
- Turn beacon lights on about 500 meters before approaching the scene;
- For roadside assistance park behind the vehicle. If possible, park your truck on a slight angle to traffic with wheels turned to the shoulder (on a hill turn wheels to traffic). Ensure you leave an adequate safety gap between your truck and the disabled vehicle (at least 1 and ½ truck lengths buffer space);
- If the disabled vehicle requires transport, pull ahead of the disabled vehicle;
- Unlock the passenger door before exiting the truck;
- Before exiting the truck make sure you are wearing the appropriate high-visibility vest;
- Identify and respond to road and environmental hazards (ice, loose gravel, etc.);
- Always maintain three-point contact when exiting the vehicle (never jump out);
- Approach the vehicle on the non-traffic side;
- If the motorist is standing near traffic, ask him or her to move to the shoulder of the roadway away from oncoming traffic. Conduct any discussions with the motorist while standing on the shoulder of the roadway, facing traffic;
- If the disabled vehicle is parked in an unsafe location, ask the motorist to move the vehicle to a safer location or further off the side of the road, if possible;
- Evaluate the time you will be on scene using the brief and emergent work and traffic management guidelines. Follow the traffic control requirements of the guidelines;
- Use passenger side of vehicle to release emergency hand brake;
- Always operate controls from the non-traffic side.

Drive Shaft & Axle Removal

OHS Regulatory Requirements
The Act: WCA115
The Regulation: OHS3.3(c) & OHS16.36(1) & OHS10.2
WorkSafeBC Prevention Polices:
WorkSafeBC Guidelines: G16.3 (AND4.3(3))
WorkSafeBC Standards:

Employer responsibilities for drive shaft and axle removal include:

- Conducting a risk assessment that identifies the hazards that workers may be exposed to during drive shaft and axle removal;
- Implementing control measures to minimize the risk to workers;
- Informing, educating, training, and supervising workers about safe work procedures;
- Ensuring that trucks and equipment used for this activity are suitably maintained and fit for purpose.

Worker responsibilities include:

- Learning and following safe work practices and procedures;
- Being alert to hazards and immediately reporting hazards to their supervisor;
- Performing work in a safe manner.

Drive shaft and axle removal procedures for the tow operator:

1. Apply the emergency brake before you get out of the truck and chock the wheels on the truck.
2. Chock the rear wheels of the disabled vehicle.
3. Evaluate the time you will be on scene using the brief and emergent work and traffic management guidelines. Follow the traffic control requirements of the guidelines.
4. Put on your protective eyewear, high-visibility vest, and hard hat before going underneath the disabled vehicle.
5. Complete the hook-up of the under-reach wheel-lift or the sling.
6. Shift the disabled vehicle's transmission to neutral and release the parking brake slowly.
7. Lift the front of the disabled vehicle, if required, and put jack stands or cribbing underneath to support the load.
8. Check the drive shaft of the disabled vehicle by hand for ½ inch rotation/slack before attempting to disconnect the u-joints. If the drive shaft is bound up never attempt to remove bolts and sleeve. **Serious injury and even death can result from an incorrect drive shaft removal.**
9. If you are unable to remove the universal joint from the yolk freely then place a pry bar in between the universal joint and the yolk and pry. If this does not release, then hit with hammer. If this does not work you will need to follow a different procedure.
10. Best practice is to remove the driveshaft from the vehicle and place it in a safe location. If this is not possible then place a strap around the frame and drive shaft to hold in place.
11. Remove the jack stands/cribbing, adjust down to proper height, and continue with the procedure of towing the vehicle.

Booms and Other Towing Equipment

OHS Regulatory Requirements
The Act: WCA115
The Regulation: OHS14.3—14.18 & OHS14.22—14.34 & OHS14.35—14.53 & OHS4.9 & OHS Part 15
WorkSafeBC Prevention Polices:
WorkSafeBC Guidelines: G14.34 & G15.5 & G15.9
WorkSafeBC Standards:

Employer responsibilities for boom operation and other equipment include:

- Conducting a risk assessment that identifies the hazards that workers may be exposed to during boom operation or when using other equipment;
- Implementing control measures to minimize the risk to workers;
- Providing health and safety information, education, training, and supervision to workers;

- Ensuring that only qualified operators operate the boom and use other equipment;
- Ensuring that booms and equipment are suitably maintained and fit for purpose.

Worker responsibilities include:

- Learning and following safe work practices and procedures;
- Being alert to hazards and immediately reporting hazards to their supervisor;
- Performing work in a safe manner.

Operator Qualifications

- Booms and other towing equipment must only be operated by a qualified person who has been instructed to operate the equipment;
- A qualified person must demonstrate competency — including familiarity with the operating instructions — for the boom and other towing equipment.

Operator procedures when using booms:

The operator of a boom must have full control of the equipment controls whenever the equipment is in use and not be engaged in other duties while operating the equipment. Always follow the manufacturer's instructions when using any towing equipment. If you do not have those instructions, request them from the manufacturer or representative.

1) Pre-use Inspection

Before an operator uses a boom, the operator must ensure that the boom was inspected prior to the operators work shift. The inspection should include:

- Inspecting the boom by carefully extending and checking for proper lubrication and structural damage;
- Ensuring that wire ropes wind tightly and evenly;
- Checking chains link by link for damage;
- Checking all manual and/or hydraulic controls including hoses and connections. Lubricate or grease all fittings, gears, hydraulic cylinders, wheel-lifts, and tow bars.

Any defects found during the inspection of the boom must be recorded in the inspection and maintenance record system and be reported immediately to a supervisor.

If a defect affects the safe operation of the boom, the equipment must not be used until the defect has been remedied.

2) Determine the Position of Equipment

The position or placement of a wrecker should be determined by the operator by:

- Calculating the least amount of resistance to the boom, and
- The best line of sight.

3) Assess Load weight

The weight of the load must stay within the manufacturer's ratings of the boom. If the weight of the load exceeds the manufacturer's recommendations of the boom a secondary unit or larger truck must be brought in to assist.

4) Identify Swing hazards

If a hazard is created by the swing movement of a load or any other part of the wrecker or boom, a person must not remain within range of the swing movement of the load. A boom line should avoid contact with any surface or structure.

5) Safely lifting the vehicle

The operator of a boom must not move a load unless the operator is satisfied that the load can be

moved safely.

If more than one wrecker with a boom is being operated then a scene coordinator must organize and control the work of any persons who are not involved in that operation to ensure that the operation can be carried out safely.

Tag lines or other effective means must be used when it is necessary to control the hazardous movement of a load or to assist with positioning a load.

Operator Procedures When Using Other Towing Equipment

An operator must have full control of all towing equipment controls whenever the equipment is in use and not be engaged in other duties while operating the equipment. Always follow the manufacturer's instructions. If you do not have those instructions request them from the manufacturer or representative.

Tow Slings

- Always inspect the tow sling as part of your start of shift pre-trip inspection to ensure there are no conditions that might adversely affect safety;
- Do not lift any part of a vehicle that exceeds the tow sling weight ratings;
- Do not use the tow sling to tow any vehicle that exceeds the manufacturer recommendations.

Wheel Lifts

Wheel lifts are used to tow vehicles by their wheels.

- Light-duty wheel lifts are designed to lift only conventional automobiles, light-duty trucks, or vans;
- Like tow slings, wheel lifts will have a lift rating and a tow rating;
- You should always check the manufactured recommended ratings before operating a wheel lift;
- Always use wheel straps as a safety precaution when using wheel lifts.

Tow Dollies

The purpose of a tow dolly is to support the wheels on the trailing end of a towed vehicle and to keep those wheels from connecting to the road. **When used incorrectly, a tow dolly can present a significant hazard to workers and other road users.**

- Always follow the manufacturer's instructions and employer safe work practices or procedures;
- Do not operate a tow dolly (or any equipment) until you have been adequately instructed and trained, and have demonstrated (to your supervisor or employer) that you can safely operate the equipment;
- Always conduct a pre-shift inspection of the dolly's components; examine the condition of the tires, break-over bar, cam lock operation and other features as directed by the manufacturer);
- Immediately report any mechanical deficiencies with the tow dolly (or any equipment) to your supervisor; do not use the dolly or equipment until it is repaired and safe for use;
- Always stay within the manufactured rating of the dolly (eg. maximum tire load x the number of tires = capacity);
- Use suitable wheel straps as directed by the manufacturer;
- Assess your work environment and ensure that suitable safety and traffic control measures are in place before commencing work;
- When using a tow dolly in an environment with limited space (such as a wall located close to the vehicle) follow the manufacturer's directions on how to safely move the vehicle away from the obstruction;

- Use safe lifting practices when handling dolly components:
 - Size up the dolly components – make a good estimate of the weight of an object, how the weight is distributed, the condition of the object, and any handholds;
 - Place your body close to the dolly components – operators should keep their feet close to the components and centre themselves before lifting;
 - Keep your back in a neutral and straight alignment whenever possible; avoid twists, turns and jerking motions;
 - Maintain a good grip when using the break-over-bar; **ensure that your head or body is never in a position where it could be struck by the break-over-bar;**
 - Use extra caution when working on uneven payment, loose gravel, snow, water, or ice.
- When using a *Collins™* tow dolly:
 - a. Follow the above requirements and practices for two dollies;
 - b. Use caution when handling the break-over-bar; to prevent serious injury, always keep your head and body away from the action of the break-over-bar;
 - c. When raising a vehicle always engage the highway or secondary locking system;
 - d. When lowering a vehicle always keep hands and feet out from under any part of the dolly when operating the release handles.
- When using an In the Ditch™ tow dolly:
 - a. Follow the above requirements and practices for two dollies;
 - b. Use caution when handling the lifting bar; to prevent serious injury, always keep your head and body away from the action of the break-over-bar;
 - c. Always use both hands and keep a firm grip on the break-over-bar when raising or lowering the dolly.
- Always comply with the requirements set out in Motor Vehicle Act Regulation for safe on-road operation.

Winches

- Always ensure that your winch is in good operating condition before use. Worn brakes, seals, or leaking hydraulic oil could cause a winch cable to accidentally let out while loaded;
- When operating a boom under power always keep a watch on the winch. Make sure that the movement of the boom does not accidentally cause damage to the wire rope or other equipment;
- When operating a winch under power, keep a close watch to make sure the wire-rope is winding properly. Do not allow it to wind loosely and unevenly on the drum;
- Always keep at least three wraps on the drum for safety;
- You should always check loads periodically if they are held in a locked position for long periods.

Scotch Blocks

Scotch Blocks are used to keep a tow truck from rolling back during a recovery. Always place them on the ground behind and touching the rear tires. Be sure to lock the brakes after the scotch blokes are in position.

● Recoveries



OHS Regulatory Requirements
The Act: WCA115
The Regulation: OHS3.3(c)
WorkSafeBC Prevention Polices:
WorkSafeBC Guidelines:
WorkSafeBC Standards:

Employer responsibilities for recoveries include:

- Conducting a risk assessment that identifies the hazards that workers may be exposed to during recoveries;
- Implementing control measures to minimize the risk to workers;
- Providing health and safety information, education, training, and supervision to workers;

Worker responsibilities include:

- Learning and following safe work practices and procedures;
- Being alert to hazards and immediately reporting hazards to their supervisor;
- Performing work in a safe manner.

Recoveries can range from simple to complex (for best practices with complex recoveries see *Complex Recovery Site Safety Plan*). Vehicles may be recovered from any number of locations: from the shoulder of a road, a ditch, over an embankment, or from a body of water.

Planning a recovery should always begin before reaching the recovery scene. Always try to gather as much information prior to dispatching a truck and arriving at the scene (see *Dispatch Guidelines 13*). In all cases, before you begin the work of recovering a vehicle, the following steps should be taken:

- Survey the scene (complex recoveries require a detailed written plan, see below);
- Decide on a recovery path;
- Decide how and where to position the truck;
- Calculate the amount of pull required;
- Consider ways to stabilize the tow truck;
- Rig appropriately for the pull and stability necessary to recover the vehicle as safely as possible;
- Recover the vehicle;
- Clean-up any debris.

You should always ask yourself the following questions when developing your recovery plan:

- Who must authorize the recovery?
- Are there any hazardous spills that need to be attended to first?
- What is the position and condition of each vehicle you need to recover?
- What are the contents of the recoverable vehicle?
- What are the approximate GVWRs of each vehicle?
- What is the condition of the road and ground surface?
- What was the possible path the vehicle took to arrive at its location?
- What are the current traffic conditions?
- If the vehicle is over an embankment, what is the grade of the slope?

Common hazards and mitigation around a recovery operation include:

Hazard	Mitigation
Hazardous spills may cause slippage.	Attend to spills before recovery. Major spills may require notification to authorities or Hazmat.
Getting cut by broken glass or sharp metal	Always wear personal protective equipment including suitable work gloves.
Broken wires on winch cables.	Gloves can also protect against broken wire.
Running into or tripping over lines, your equipment or debris.	Always watch for debris and loose wire or cable. Clear work area of major debris before recovery.
Any wire rope or chain that pulls loose or breaks free can be lethal.	Always stay clear of the possible trajectory of broken wire rope or chain.
Keep free of the marked danger zone.	Clearly mark-out your recovery area with cones or caution tape.
A vehicle that rolls or breaks free of the rigging.	Always be prepared for a possible break free.
The tow truck becoming unstable, shifting, or rolling backwards during the recovery.	Use emergency brake and chock wheels.
Wet, slippery conditions.	Watch for ground conditions.

Rigging

OHS Regulatory Requirements
The Act:
The Regulation: OHS 15
WorkSafeBC Prevention Polices:
WorkSafeBC Guidelines: G15.5 & G15.9
WorkSafeBC Standards:

Employer responsibilities for rigging include:

- Conducting a risk assessment that identifies the hazards that workers may be exposed to during rigging activities;
- Implementing control measures to minimize the risk to workers;
- Providing health and safety information, education, training, and supervision to workers.

Worker responsibilities include:

- Learning and following safe work practices and procedures;
- Being alert to hazards and immediately reporting hazards to their supervisor;
- Performing work in a safe manner.

Wire Rope

Working Load Limits (WLL): The working load limits are the maximum loads recommended. Never exceed these limits:

Diameter	Breaking Strength (lb)	Working Load Limits (WLL) (lb)
3/8 inch	12,000	3,500
7/16 inch	16,540	4,700
1/2 inch	21,400	6,100
8/16 inch	27,000	7,700
5/8 inch	33,400	9,500
3/4 inch	47,600	13,600
7/8 inch	64,400	18,400
1 inch	83,699	23,885

The breaking strengths shown in the table above are ratings published by manufacturers.

To maintain working within the WLL of a wire rope, a snatch block may be required. Working load limits apply only to wire-rope in good condition. Damaged rope must be replaced.

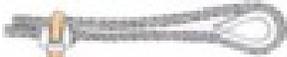
Overloading is a common cause of damage to wire-rope. Other causes include:

- Damage due to improper winding
- Permanent bends or kinks
- Rust or corrosion
- Damage from twisting
- Fatigue
- Broken wires

Wire Rope Clips

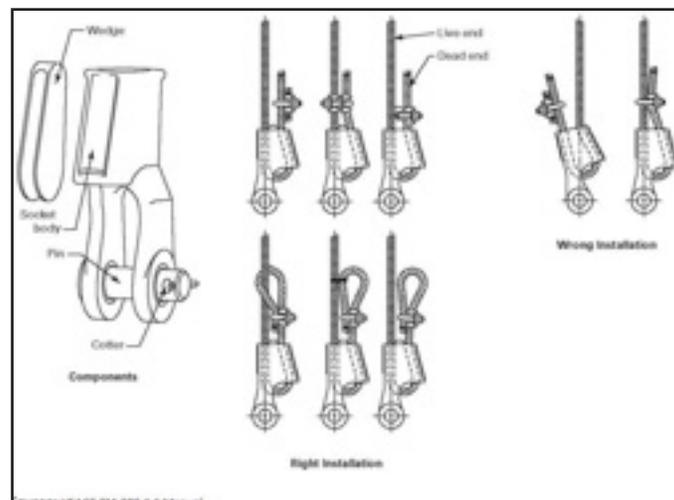
The use of wire rope clips is only recommended for emergency field repair use. It is recommended that you use a wedge socket for field repairs. Wire rope clips only allow 40% WLL of the wire rope and wedge sockets allow for 80% of the WLL.

- Always inspect wire rope clips and test assemblies before use. Check for wear, damage, bending, or deformation. Check the condition of the saddle and threads on U-bolt and nuts;
- Always perform an inspection of the wire rope end and termination, clips, and thimbles looking for signs of wear, abuse, and general adequacy;
- Always make sure you use the recommended number of clips and the correct amount of rope turn back from the thimble before testing the assembly;
- Always destroy wire rope clips that are beyond safe use;
- Never use with plastic coated wire rope;
- Never stagger clips;
- The U goes on the dead end of the rope where crushing will not affect the breaking strength of the hoist line;
- Never join ropes with use of a thimble;
- Never shock loads;
- Always match the same size clip with the same sized wire rope;
- Always prepare wire rope end and termination as instructed (see chart below);
- Always use at least three clips when making a prepared loop or thimble-eye termination for wire rope;
- Always make sure the clips are evenly spaced.

Installation			
<p>Step 1: Apply the 1st clip one base width from dead end of the rope – U-bolt over dead end – live end rests in clip saddle. Tighten nuts evenly to recommended torque.</p> 	<p>Step 2: Apply 2nd clip as close to loop as possible – U-bolt over dead end – turn nuts firmly but do not tighten!</p> 	<p>Step 3: All other clips – Space evenly between first two.</p> 	<p>Step 4: Apply tension and tighten all nuts to recommended torque. Re-check nut torque after rope has been in operation.</p>

Wedge Sockets

- Always inspect socket, wedge and pin before using.
- Do not use part if showing cracks.
- Do not modify or substitute parts.
- Always select the wedge and socket for the wire rope size.
- Inspect permanent assemblies annually, or more often when working in severe conditions.
- Repair minor nicks or gouges to socket or pin by lightly grinding until surface is smooth.
- Do not reduce original dimension more than 10%.
- Do not repair by welding.
- Never mix and match wedges or pins between models or sizes.



Snatch Blocks

- A single snatch block can be used to give the effect of connecting two wire-ropes to a load. Each line supports an equal share of the total load;
- You should always use snatch blocks to reduce tension when pulling line loads that would exceed the WLL of the wire-rope;
- Be extremely careful when calculating a load. You must calculate the level of resistance when planning your recovery;
- Always check the manufacturers working load limits. This is the maximum load that

should be applied to the snatch block.

Chains

- Chains are designed at a 4 to 1 ratio. A design factor denotes a product's theoretical reserve capability, usually computed by dividing the catalogue ultimate load by the WLL;
- Only Grade 80 alloy chains or greater should be used for recoveries;
- Never exceed the WLL of the chain;
- Before each use, always inspect the chain to make sure it is not kinked, twisted, or knotted, or has visual defects, distortion, or damage;
- Start the lift slowly. Avoid abrupt starts if possible to avoid shock loading;
- Never incorporate in your chain any hook, ring, or shackle that has a WLL less than that of the chain;
- When rigging there should be no twists in the chain. A twisted chain will reduce the WLL of the chain;
- It is recommended that any hook, ring, or shackle you use match the WLL of the chain.

Synthetic Rigging

- Synthetic rigging includes round slings and straps;
- Synthetic rigging has a design factor of 5 to 1;
- Always stay within the WLL of round strings and straps;
- Choose the appropriate round slings/strap for the calculated pull;
- Before use, always inspect your round slings/straps for damage;
- Always use the appropriate shackle when connecting round slings/straps.

Calculating the Amount of Pull

The key factors involved in calculating the required pull will be:

- The weight of the vehicle;
- The type of surface in the recovery path;
- The slope of the ground in the recovery path;
- Wheels that will roll or not roll.

You should always estimate the amount of pull required to recover the vehicle before rigging or engaging the winch.

Recovery Path

- If the recovery path is a straight line from the vehicle to the tow truck, you should rig to pull the vehicle directly towards the tow truck;
- If it is not possible to have a recovery path that is in a straight line from the vehicle to the tow truck (eg. trees or rocks in the way) then you will need to rig the vehicle in a direction other than the tow truck. This may require the use of anchor points and snatch blocks;
- Pulling over a rocky surface may require that you lift the vehicle slightly to reduce the tension over the rough terrain;
- Never tie down the front of a tow truck to keep it from lifting off the ground.

● Steep Slope/Embankment

OHS Regulatory Requirements
The Act:
The Regulation: OHS20.98 & OHS11.2 (where applicable)
WorkSafeBC Prevention Polices:
WorkSafeBC Guidelines:
WorkSafeBC Standards:



Employer responsibilities to steep slope or embankment work include:

- Conducting a risk assessment that identifies the hazards that workers may be exposed to during steep slope or embankment work;
- Implementing control measures to minimize the risk to workers;
- Providing health and safety information, education, training, and supervision to workers.

Worker responsibilities include:

- Learning and following safe work practices and procedures;
- Being alert to hazards and immediately reporting hazards to their supervisor;
- Performing work in a safe manner.

Vertical Falls

A fall protection risk assessment is required when a vertical elevation greater than 10 feet is involved in the recovery or, where a fall from a height of less than 3m involves a risk of injury greater than the risk of injury from the impact on a flat surface.

A written fall protection plan is required prior to using a personal fall protection system for work with a potential fall hazard greater than 7.5 meters (25ft). At a minimum the plan should include:

- Potential fall hazards on the job;
- Types of fall protection systems to be used;
- Instructions to workers on how to safely use the equipment;
- Instructions on how to rescue a worker who has fallen and can't initiate self-rescue.

Where a fall protection plan may not be required by the Regulation, the employer must still consider the need for rescue or evacuation under OHS Regulation section 4.13.

Before a worker is allowed into an area where a risk of falling exists, the employer must ensure that the worker is instructed in the fall protection system for the area and the procedures to be followed. A fall restraint system prevents you from falling using either safety belts or a full safety harness that attaches you to an anchor leaving both of your hands free to work. A fall restraint system should only be used where a worker likely can regain footing or otherwise self-rescue immediately after a slip or fall.

Scaling Operations

- A worker on a rock face or other steep slope must be protected from falling by a work positioning or rappelling system, or by a fall arrest system as required by Part 11 (Fall Protection) of the OHS Regulation;
- Fall restraint systems may need to be utilized on steep slopes to prevent workers from sliding or tumbling down a steep slope and being injured;
- Rock scaling and like work must be undertaken from the top down, and any area into which material will fall must be kept clear of workers and equipment;
- A single rope work positioning system may be used by a worker to rappel to and remain in work locations on a rock face or other steep slope if tension is maintained in the rappel rope at all times so that the worker is not exposed to a free fall;
- If the work practice could result in a slack line in the rappel or work positioning system and a fall could occur, a personal fall arrest system, independently anchored, meeting the requirements of Part 11 must be used. A fall arrest system means a system that will stop a worker's fall before the worker hits the surface below;
- A rappelling or fall protection system must be used in a manner that minimizes the swing-fall hazard;
- A rappelling rope must:
 - i. Be synthetic fibre rope with a breaking strength specified by the manufacturer of at least 27 kN (6,000 lb) or be at least 16 mm (5/8 in) diameter wire-cored fibre rope.
 - ii. Be long enough to reach a safe landing spot from which egress without rappelling is possible.
 - iii. Not be lengthened by tying ropes together.
- The ultimate load capacity of an anchor for a rappelling or fall protection line must be at least 22kN (5,000 lb);
- Each rappel line and fall arrest lifeline that is tied to a natural anchor such as a suitable tree, stump or rock outcrop must also be tied to a second anchor of at least equal load capacity;
- A rappelling rope must be attached to an anchor and, where practicable, must be positioned to avoid bearing on any sharp edge or surface likely to cause rope damage, and if it is not

- practicable to avoid sharp edges or surfaces, rope protectors or wire-cored rope must be used;
- A sit harness with rope attachment below waist level may be used for work positioning or rappelling;
- It is important to inspect personal fall protection equipment on an ongoing basis to ensure safety. At minimum this involves inspection before use on each work shift, and after each use to arrest a fall.

For more information about fall protection, visit www.WorkSafeBC.com

● Off-Road Recoveries

OHS Regulatory Requirements
The Act: WCA115
The Regulation: OHS3.3(c) & OHS4.20 — 4.22
WorkSafeBC Prevention Polices:
WorkSafeBC Guidelines: G4.20 — G4.21
WorkSafeBC Standards:

Employer responsibilities to off-road recovery include:

- Conducting a risk assessment that identifies the hazards that workers may be exposed to during off-road recoveries work;
- Implementing control measures to minimize the risk to workers;
- Providing health and safety information, education, training, and supervision to workers;
- Having a written alone procedure.

Worker responsibilities include:

- Learning and following safe work practices and procedures;
- Being alert to hazards and immediately reporting hazards to their supervisor;
- Performing work in a safe manner;
- Following working alone procedures.

Off-road recoveries pose many of the same hazards as on-road recoveries but can also involve an operator travelling to a remote location. This may involve working alone for an extended period of time. OHS Regulation 4.21(1) requires an employer to have a written safe work procedure for workers performing tasks alone or in isolation.

When performing off-road vehicle recoveries in remote locations a person-check procedure should be implemented that includes:

- Assigning a designated person who will establish contact and record results;
- Establish time intervals between checks;
- A final check at the end of the recovery;
- A procedure to follow in case the employee working alone cannot be contacted.

Time intervals should be based on the level of risk the employee will be exposed to. With low risk recoveries the time intervals can be longer. High risk activities require shorter time intervals between checks. The time intervals for check-in should be discussed with the operator after a hazard evaluation and scene assessment has been conducted prior to the commencement of work.

Working in remote locations presents particular challenges to providing a means of checking worker well-being. However, there are a number of types of systems that may be of use in such locations. Examples include:

- Wireless satellite hand-held alerting and tracking devices

- Satellite phones
- Radio transmitters
- Crew contact: pre-determined meeting place or other means of contact. A pre-determined time for contact

It is important that the dispatcher acquire as much information about the recovery as possible before sending an operator to the scene. Doing so will allow the operator to more thoroughly conduct a scene assessment prior to driving out to the scene.

● Water Recoveries

OHS Regulatory Requirements
The Act: WCA115
The Regulation: OHS4.13(3)(e) & OHS8.26 & OHS32.9
WorkSafeBC Prevention Polices:
WorkSafeBC Guidelines:
WorkSafeBC Standards:



Employer responsibilities to water recovery include:

- Conducting a risk assessment that identifies the hazards that workers may be exposed to during water recoveries;
- Implementing control measures to minimize the risk to workers;
- Providing health and safety information, education, training, and supervision to workers.

Worker responsibilities include:

- Learning and following safe work practices and procedures;
- Being alert to hazards and immediately reporting hazards to their supervisor;
- Performing work in a safe manner;
- Following working alone procedures.

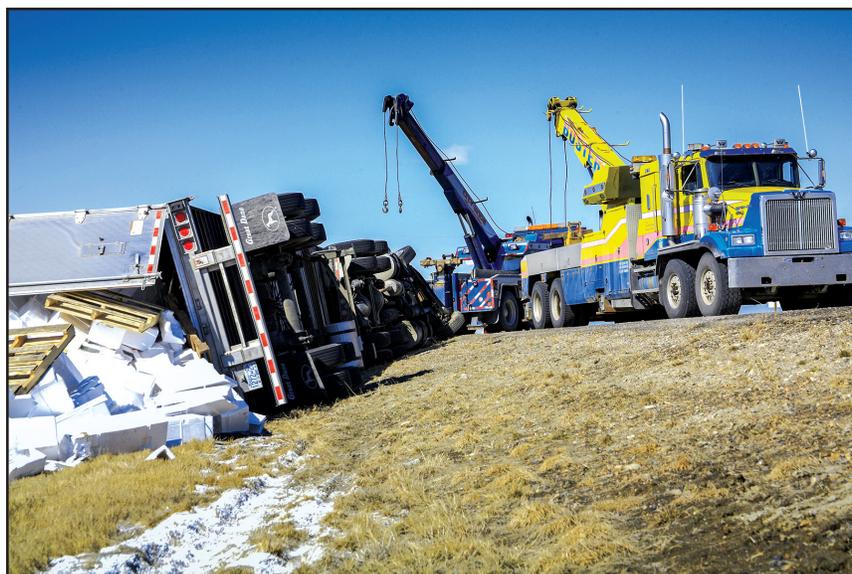
If a recovery requires workers to be at risk of entrapment or depths greater than one metre then a professional certified commercial diver may be required to assist in the recovery.

With any commercial diving work — which includes vehicle recoveries — the tow company must ensure that the diver has completed an Occupational Scuba Program in order to obtain WCB coverage. In not, the company who hires the diver could be held legally liable if there was an incident or fatality.

If the operator has to recover a vehicle in a way that could place them at risk of being submerged, or caught in a current, then a water recovery escalates to a complex recovery. This type of recovery requires the completion and communication of a complex recovery scene assessment before work can begin. A complex recovery may require the services of a commercial dive team.

● Complex Recoveries

OHS Regulatory Requirements
The Act: WCA115
The Regulation: OHS3.3(c)
WorkSafeBC Prevention Polices:
WorkSafeBC Guidelines:
WorkSafeBC Standards:



Employer responsibilities to complex recoveries include:

- Conducting a risk assessment that identifies the hazards that workers may be exposed to during complex recoveries;
- Implementing control measures to minimize the risk to workers;
- Providing health and safety information, education, training, and supervision to workers.

Worker responsibilities include:

- Learning and following safe work practices and procedures;
- Being alert to hazards and immediately reporting hazards to their supervisor;
- Performing work in a safe manner;
- Following working alone procedures.

A complex recovery is defined as:

- The use of a heavy-duty tow truck in a mountainous, deep valley, and/or with a narrow road geography.
- The assistance of a specialized piece of equipment (i.e. Crane).
- The use of an extension to the winch line from the available winch on the tow vehicle, due to the distance of the vehicle from the roadway.
- A recovery where the location of the vehicle presents a hazard (in a lake, ravine, river).
- A recovery where high risk cargo is involved and environmental and safety factors must be considered.
- The use of two or more trucks are required for the recovery.

Complex recoveries require the completion of a written site safety plan by the designated site scene coordinator. A site safety plan template is available from the ARA web-site and in the appendices of this document.

The Role of the Site Scene Coordinator:

The site scene coordinator is the person designated by your company who must complete a site assessment before undertaking any complex recovery. In addition, this person must actively promote safety in the workplace, ensure that all safe work practices are followed, and complete and log all inspections prior to the commencement of work.

The site scene coordinator is also the person who coordinates with all other sub-contractors and/or emergency personal present during the recovery. The site scene coordinator has over-all control of the workplace and responsibility for health and safety management.

Hazard control:

All hazards identified before and during the recovery must be controlled. The standard worksheet (available for download) may be used to analyze and record the various hazards that may be present during the recovery.

Communications:

All on-site safety requirements must be communicated to all workers on-site during the recovery. This will include all hazards identified during the initial inspection and during the course of the recovery. Hazards should be posted on a job-site board or during pre-work tailgate meetings. The aim is to ensure that all workers on site are aware of the hazards as they may arise and any plans to mitigate those hazards.

Emergency:

In the event of an emergency your company's emergency evacuation procedures should be followed. All incidents must be reported immediately to the site scene coordinator. An incident report will be completed as soon as practicable.

Site Safety Plan:

The site safety plan template is the industry standard for complex recoveries.

The standard template contains check boxes for common hazards. Every hazard is listed under general headings. For instance, when identifying potential road conditions hazards there are four possible conditions: dry, wet, icy, or muddy. The site scene coordinator should check all that apply and then document any mitigation action. If a condition is not listed (eg. loose gravel) then there is extra space added on the form for these things.

A site safety plan should be brief but as detailed as possible. Once the initial assessment has been completed and communicated to workers, work can begin. Any changes to the original plan must be documented by the site scene coordinator and any new hazards must be identified and communicated to workers.

**A site scene assessment form can be downloaded from <http://www.ara.bc.ca/about-education-training/ara-health-safety/ara-health-safety-towing-recovery-risk-assessment-tool-kit>.*

● No-Go Scenarios

The following scenarios are considered high risk. Recovery must be delayed until these hazards can be controlled:

- If the maximum lifting capability of equipment will be exceeded;
- If emergency services are on the scene and have not approved the vehicle recovery;
- If weather conditions make recovery too dangerous at the time of dispatch (eg. reduced visibility due to fog or storm, slippery conditions, or locations in an avalanche zone);
- If traffic control is required but not yet present;
- If there is not sufficient lighting;
- If the site scene coordinator determines the scene to be unsafe.



Violence in the Workplace

OHS Regulatory Requirements
The Act:
The Regulation: OHS4.2 — 4.30
WorkSafeBC Prevention Polices: R4.27-1 — R4.30-1
WorkSafeBC Guidelines:
WorkSafeBC Standards:

Employer responsibilities to violence prevention include:

- Conducting a risk assessment that identifies the violence hazards workers may be exposed to;
- Implementing control measures to minimize the risk to workers;
- Providing health and safety information, education, training, and supervision to workers.

Worker responsibilities include:

- Learning and following safe work practices and procedures;
- Being alert and immediately reporting hazards to their supervisor;
- Performing work in a safe manner;
- Following violence prevention procedures.

Operators may face the risk of violence from the public. As such, the employer must set up and instruct workers on procedures to eliminate or minimize the risks.

A workplace violence prevention program should be part of a firm's health and safety program and address:

- Situations and circumstances that may increase the risk of violence to operators;
- Previous incidents and threats of violence involving your operators;
- Violent incidents and threats at similar workplaces and industry data.

A violence prevention program should include the following components:

- Written policy to eliminate or minimize risk;
- Regular risk assessments;
- Written safe work procedures;
- Worker and supervisor training;
- Procedures for reporting and investigating incidents;
- Annual program review or reviews that follow an incident.

For more information on violence prevention, visit www.WorkSafeBC.com

Traffic Management

OHS Regulatory Requirements
The Act:
The Regulation: OHS518.2 & 18.17
WorkSafeBC Prevention Polices:
WorkSafeBC Guidelines: G18.4 (1)
WorkSafeBC Standards:

Employer responsibilities to traffic management include:

- Conducting a risk assessment that identifies the roadside hazards workers may be exposed to;
- Implementing control measures to minimize the risk to workers;
- Providing health and safety information, education, training, and supervision to workers.

Worker responsibilities include:

- Learning and following safe work practices and procedures;
- Being alert and immediately reporting hazards to their supervisor;
- Performing work in a safe manner.

Overview:

Speed has been identified as a key risk factor in roadside work, influencing both the risk of a road crash as well as the severity of the injuries that could result from crashes. As speed increases, the degree of risk a worker faces increases dramatically.

Vehicles approaching a service, towing, or recovery scene may be driven at speeds from a creeping pace to well beyond the posted speed limit. Passing motorists at every vehicle-related towing and recovery scene have varying driving abilities. Some of these vehicle operators may be vision impaired, under the

influence of alcohol and/or drugs, have a medical condition that affects their judgment or abilities, or completely oblivious to your presence due to distractions caused by cell phone use.

Two contributing factors for towing and recovery operator deaths and severe incidents on roadways are:

1. Lack of proper advance warning (like signs and cones) to approaching traffic to give notice and create safe space around the work area.
2. The failure of the passing traffic to comply with provincial Slow Down and Move Over legislation.

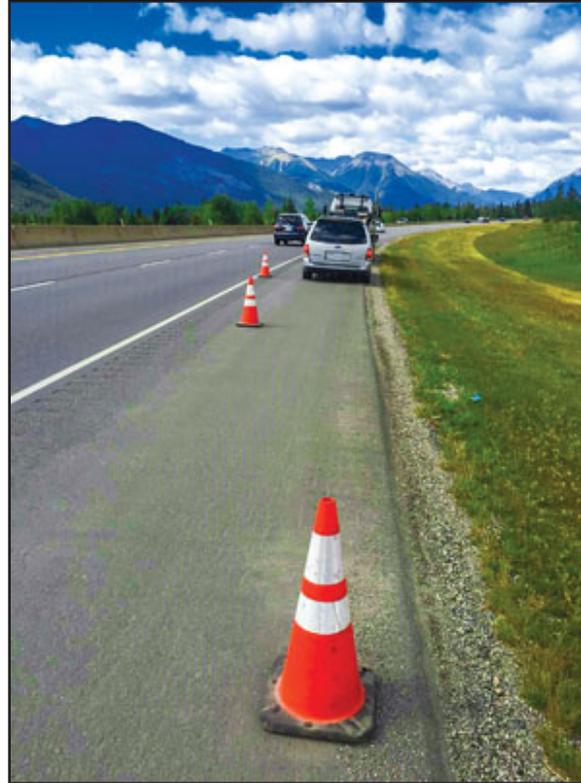
The best way a worker can protect themselves from a collision with passing motorists is to build an effective traffic control zone to separate the work area from passing traffic. Your employer must ensure that effective traffic control (signs and devices) are provided for you and other workers to use to reduce or eliminate the hazard of traffic.

“Traffic control” is the use of signs, flashing arrow boards, sign boards, buffer or shadow vehicles, barricades, cones, barriers, detours, traffic lights, traffic control persons (TCPs) or other techniques and devices to manage the flow of traffic.

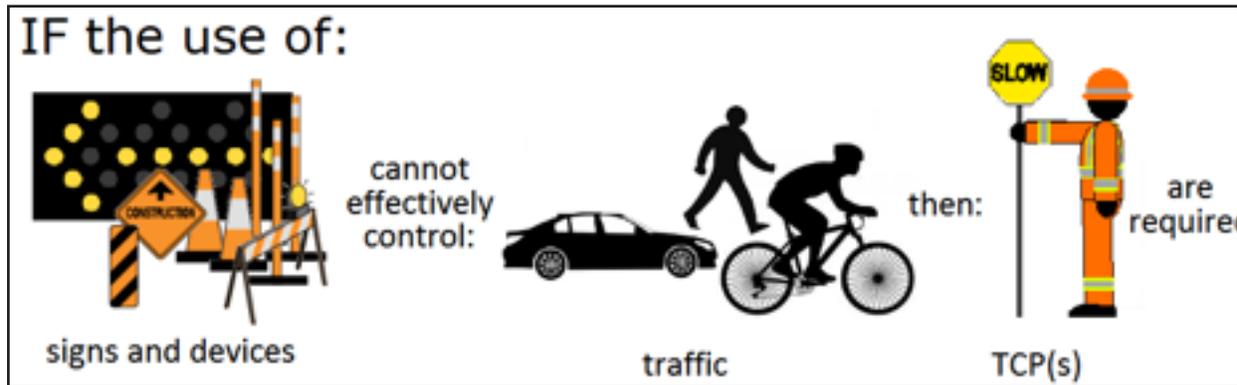
The fundamental principles of traffic control:

1. Traffic safety in roadside work zones is an integral element of every event; the safety of workers and the motoring public must be kept in mind at all times.
2. Traffic movement should be inhibited (delayed) as little as possible.
3. Motorists in a work zone should be guided in a clear and positive manner through the effective use of traffic control devices (signs, cones, flashing lights).
4. To ensure acceptable levels of operation, routine inspection of traffic control devices should be performed.
5. The maintenance of roadside safety requires constant attention during the life of the work zone because of the potential increase in hazards (distracted/inattentive drivers and rubberneckers).

Towing and recovery operators are required to ensure that effective traffic control is provided and used whenever traffic could be hazardous to a worker. This may include the use of traffic control persons (TCPs) or “flaggers” who should be used only if the use of signs and other traffic control devices and procedures alone cannot provide effective traffic control.



When are TCPs required?



Generally, TCPs are called to assist in towing and recovery operations when:

- A lane needs to be closed on a highway for a recovery operation;
- There is lots of traffic and single lane alternating traffic needs to be conducted;
- When available devices do not meet the standard minimum requirements in the MOTI Traffic Management Manual.

If the recovery of a disabled or damaged vehicle prevents the safe passage of other vehicles or if passing vehicles are a danger to the workers engaged in the recovery operation, the tow operator must take steps to protect the safety of themselves and the public by:

- Completing a risk assessment (and traffic control plan where needed);
- Wearing suitable PPE;
- Warning traffic of the recovery operation by placing required signs and cones according to the Traffic Management Manual before the start of work and removing them when they are no longer required.

The traffic control measures used must also be practical for the work being conducted. This depends on the duration of work and other site factors.

Traffic Control Requirements Based on Duration of Work

The table below provides a guide to help identify what kind of traffic control is required:

Duration of Work	Description	Examples of Activities	Conditions
Emergency Work	Situations which require immediate response to save lives or prevent serious injury using whatever resources are available.	Vehicle, multi-vehicle incident, or hazardous situation requiring critical intervention in order to save lives or prevent serious injury.	Stand-by until instructed to proceed with recovery. A hazard assessment must be conducted prior to proceeding.
Emergent Work	Emergent work involves very short-duration activities for which setting up and taking down temporary traffic control devices may take more time than the actual work and expose workers to greater risk. Each entry on the travelled portion of the roadway lasts less than 1 minute, and the total time to complete the task is less than 5 minutes	Vehicle needing a jump-start or fuel.	Complete a Risk Assessment. Approaching traffic must have sufficient sight distance (and visibility). If approaching traffic cannot see the work area from a safe distance, a short duration layout must be used.
Brief Duration	Generally planned work, although the exact location or extent of the work required may not be fully known. It requires less than 15 minutes to complete. Traffic control devices are generally not required.	Stalled Vehicle	Complete a Risk Assessment. If the work is expected to last longer than 15 minutes, or the hazards are such that traffic control measures may be required, then additional resources will be needed to implement traffic control measures. The work should be delayed until the appropriate work zone devices are positioned (see Risk Evaluation for Emergent or Brief Duration work).
Short Duration	Occurs when a work operation occupies one location for more than 15 minutes during a single daylight period.	Incident vehicle, rollovers, or recoveries.	Complete a Risk Assessment. Proceed with appropriate traffic management layout and positioning of traffic control devices.
Long Duration	Planned work that occupies one location for more than one daylight period. Night work lasting more than 15 minutes is also considered long duration work.	Complex recoveries.	Complete a Risk Assessment. A traffic control plan is required.

The Roadside Work Zone

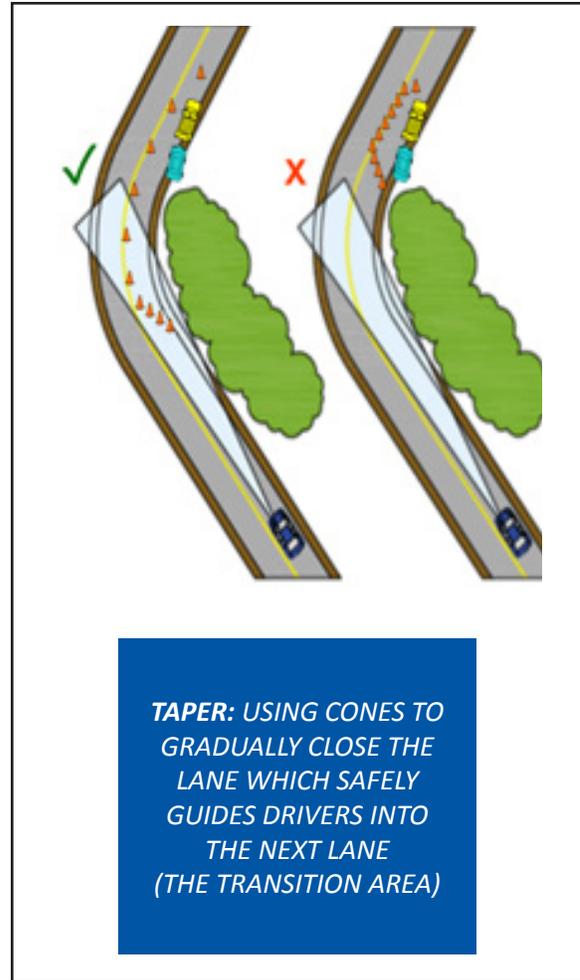
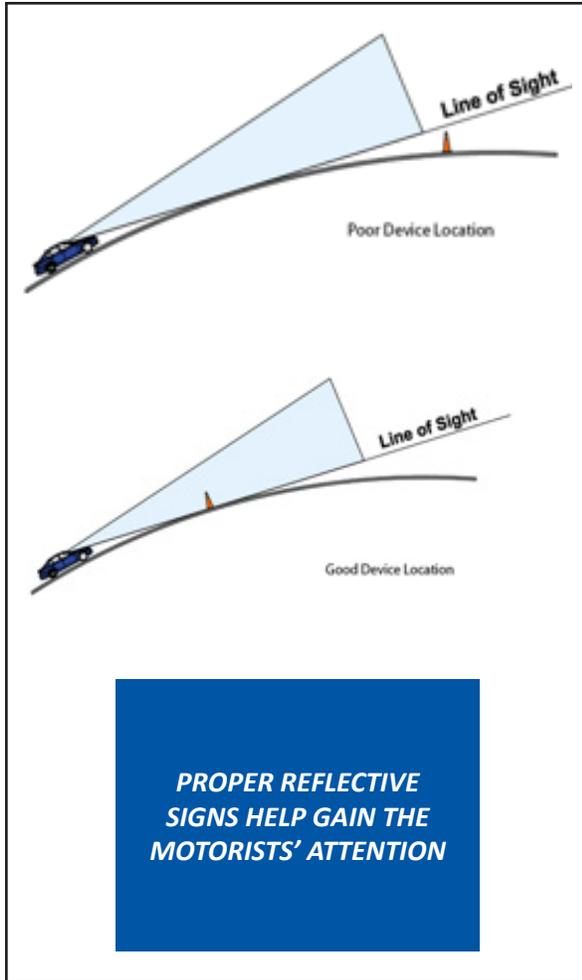
The work zone is an area between the first advance warning sign and a point beyond the work area where traffic is no longer affected.

Work carried out on the roadway must be placed in a consistent fashion with due regard for public and workplace safety. A work zone uses different devices to control, reduce, or eliminate the high-risk hazard of passing traffic. Work zones are divided into five parts:

1. **Advance Warning Area:** Use of signs and flashing lights etc. to provide information to drivers about what to expect.
2. **Transition Area:** Use of cones and flashing arrow boards to safely move traffic away from the work in a controlled manner.
 - This area must be placed in a highly visible area ahead of curves or hills so that drivers are not surprised at the last minute (see sight distance guide).
 - This area usually contains a taper design that moves traffic away from the workers.
3. **Buffer Area:** Use of cones to keep traffic separated from the recovery scene and protects workers and the public.
 - The Buffer Area must be kept clear; this area is planned in case an inattentive driver crashes into the area.
 - The length this area will change depending on the speed of traffic and safe visible location to place the transition area taper.
4. **Work Area:** The use of cones to keep traffic separated from the recovery scene and to protect workers. The location of the recovery scene will dictate what the Work Zone will look like:
 - Traffic volume and speed;
 - The complexity of operations in terms of equipment, movement, and road conditions;
 - How far from the normal path the traffic must be diverted.
5. **Termination Area:** Use of cones or other devices to lead traffic back to its normal path.

**visit <http://www.conezonebc.com/roadside-worker-safety-resources/for-employers-and-supervisors/tailgate-meeting-guide-towing-and-recovery> or <http://www.ara.bc.ca/about-education-training-ara-health-safety> for more information and to download a copy of the Tailgate Meeting Guide.*

Make sure that there are no misleading gaps in the traffic control areas that make the motorist think that they have cleared the Work Zone; they may cross into your Work Area.



Buffer Vehicle

80% of Work Zone collisions occur in the Transition Area. Because of this it is extremely important that the Buffer Area remains clear of equipment.

The only equipment that can be placed and used in this area should be a Buffer Vehicle.

A Buffer Vehicle may be positioned to protect the work in progress. If the Buffer Vehicle is being used on the shoulder for any recovery which will not impact traffic then a minimum of 360° flashing lights can be used. If the Buffer Vehicle has an arrow board then it should be in "caution" mode.

If the Buffer Vehicle is being used to block a lane then it must have a Flashing Arrow Board and must be used in conjunction with other traffic control devices.



Buffer Vehicles must leave space before the Work Zone in case they are rear-ended.

When used as a Buffer Vehicle, the Emergency brakes should be engaged, the wheels turned away from the work in progress, and the worker should be out of the vehicle if possible.

It is important to leave appropriate space between the Buffer Vehicle and the Work Area as the vehicle will likely roll forward when struck. No one should stand near the Buffer Vehicle.

When is a Buffer Vehicle required? Buffer Vehicles may be required for high-speed work.

It is important to call the Highway Maintenance Contractor any time you receive a call out to the highway, as they may be available to provide cover or implement other necessary controls.

Part VIII

This section includes:

- Appendices
- Personal Protective Equipment
- Training Providers

Appendices

Workers Compensation Act, Part 3 – Occupational Health and Safety

www.WorkSafeBC.com

- Division 4 – Committee/Worker Safety Reps
- Division 10 – Incident investigation and reporting
- Division 11 – Inspection, investigation and reporting
- Division 12 – Enforcement
- Division 15 – Offences

Occupational Health & Safety Regulation

www.WorkSafeBC.com

- Part 3 – Rights and Responsibilities
- Part 4 – General Conditions
- Part 5 – Chemical and Biological agents (WHMIS)
- Part 8 – PPE Personal Protective Equipment
- Part 10 – De-energize/lock-out
- Part 11 – Fall Protection
- Part 12 – Tools, machinery, and equipment
- Part 14 – Cranes and Hoists
- Part 15 – Rigging
- Part 16 – Mobile Equipment
- Part 18 – Traffic Control
- Part 19 – Electrical Safety]
- Part 20 – Construction, Excavation, and Demolition
- Part 24 – Diving, Fishing, and Other Marine Operations

BC Traffic Control Manual 2015

http://www.th.gov.bc.ca/publications/eng_publications/tcm/traffic_control_manual.html

Site Safety Assessment Worksheet

Attached copy or visit <http://www.ara.bc.ca/about-education-training/ara-health-safety>

Personal Protective Equipment

Requirement of High Visibility Garments	PPE Requirements
 <p>Safety Vests are a requirement of WorkSafeBC and the Ministry of Transportation for the purpose of identifying a worker's location or well being. The apparel must be of a colour which contrasts with the environment. This is the standard for all roadside workers exposed to a traffic hazard of 30km/h or higher.</p> <p>Reflective arm and leg bands are highly recommended for work at night as the motorist detects movements of the legs and arms from a greater distance.</p> <p>Care instructions for vests: Machine wash the vest as needed. Do not place vest in the dryer; the heat will damage the reflective property and cause it to be less visible at night. Vests must be kept clean and replaced when they become dirty or faded.</p>	<p>Safety Vests:</p> <ul style="list-style-type: none"> • The only acceptable high visibility colours for safety garments are fluorescent yellow-green and fluorescent orange. • Black, blue, or red vests are not acceptable for use on roadways as they are not easy for a driver to detect. • Due to the hazard of passing traffic, vests must be of a tear-away quality. • Reflective striping must be a 2-inch width with a half-inch of fluorescent trim around the reflective striping. • Vest must be closed so the worker can be seen from 360°.
<p>Safety Footwear</p> <p>A worker's footwear must be of a design, construction, and material appropriate to the protection required.</p> <p>Towing and Recovery operators must be prepared to work in a variety of conditions with the potential of slipping, uneven terrain, abrasion, crushing potential, temperature extremes, corrosive substances, puncture hazards, electrical shock, and other hazards.</p>  <p><i>Example of Safety Footwear required for towing and recovery work.</i></p> 	<p>Safety Footwear Should:</p> <ul style="list-style-type: none"> • Be about 5 inches high to provide adequate protection from cuts and abrasion. • Be tight fitting around the ankle to provide support for walking on uneven surfaces. • Meet CSA Grade 1 toe protection due to risk of toe injuries. • Have protective sole plates to protect from sharp items puncturing the foot. • Have soles that protect against electric shock.

Training

As discussed earlier, employers have a legal duty to provide their workers with the information, instruction, training, and supervision necessary to ensure their health and safety — and the health and safety of other workers — when carrying out their work.

Training includes providing safety orientation for new and young workers and training workers on their specific tasks. This includes:

- Ensuring workers have a safety orientation and basic training before they start working;
- Training workers for tasks specific to their jobs;
- Providing ongoing supervision and training for workers.

Job-specific training is required. Examples of third-party safety training available for the auto towing and recovery industry include the following:

- ARA Certified Towing and Recovery Operator
- Rotator/Truck-mounted crane
- Service truck (Driver's competency verification)
- Fall Protection
- Roadside Safety Awareness (Safe Work Practices for the Towing and Recovery Industry)
- WHMIS
- TDG
- In-house Company Training Program
- OHS basics for safety representatives and Occupational Health and safety committee members
- Supervisor OHS responsibilities
- Incident investigation
- First Aid Training
- Prevention of Violence in the workplace
- Workplace Bullying and Harassment
- Emergency Preparedness
- Collision Avoidance