

Working at Heights Training Program Standard

Ministry of Labour

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This training program standard will be reviewed at least every five years.

This Training Program Standard outlines the learning outcomes and other requirements that are expected of a training program in order for it to be approved by the Chief Prevention Officer (CPO).

CPO approval is granted to those programs that meet the Training Program Standard after a successful assessment and review of the program submitted. While reasonable efforts are made to ensure that the criteria of the Training Program Standard are met, , it is the responsibility of employers to ensure compliance with the training requirements under the *Occupational Health and Safety Act*. In determining what rights or obligations a party may have under the legislation, reference should always be made to the official version of the Act and the regulations.

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Scope

Section 7.1 of the Occupational Health and Safety Act (OHSA) provides the Chief Prevention Officer (CPO) the authority to establish standards for training programs required under the OHSA and its regulations, and to approve training programs which meet those standards.

Section 7.2 of the OHSA provides the CPO with the authority to establish standards which must be met in order for a training provider to be approved to deliver one or more approved training programs.

The Working at Heights Training Program Standard outlines the requirements that must be met by training programs seeking approval by the CPO. It should be read in conjunction with the Working at Heights Training Provider Standard, which sets out the requirements that a provider must meet to be considered for approval by the CPO. Working at heights training programs which contain eLearning components must also meet the CPO's eLearning Instructional Design Guidelines.

In order to be approved by the CPO to deliver an approved working at heights training program, training providers must be able to demonstrate they meet both the Working at Heights Program and Provider standards.

1. Introduction

This Working at Heights Training Program Standard sets out the requirements that must be met by training programs submitted to the Chief Prevention Officer (CPO) for approval. It should be read in conjunction with the Working at Heights Training Provider Standard, which sets out the requirements that must be met by training providers seeking approval by the CPO to deliver an approved working at heights training program. Working at heights training programs which contain eLearning components must also meet the CPO's eLearning Instructional Design Guidelines. This Working at Heights Training Program Standard is designed to support consistent and quality training for workers in the Province of Ontario, with respect to core competencies required for working at heights.

The training programs based on this standard could be customized to address the specific hazards of a sector and the common equipment and machinery used in that sector, as long as the learning outcomes outlined in this standard are achieved.

2. Purpose

The purpose of the Working at Heights Training Program Standard is to establish a mandatory minimum standard for high quality and consistent of training for workers who work at heights in the Province of Ontario.

The purpose of a working at heights training program that meets the requirements set out in this standard is to:

- a) Strengthen workplace safety culture by elevating the profile and importance of preventing falls from heights;
- b) Provide workers who may be exposed to the hazard of falling from heights with adequate knowledge about fall hazards and general safety practices to work safely at heights;
- c) Provide workers who use personal fall protection equipment with sufficient knowledge about its purpose and use; and
- d) Reduce the number of fall-from-heights incidents, injuries and fatalities.

3. Overview

The Working at Heights Training Program Standard has a modular format to allow for core theory training to be completed separately from practical training elements. There are two modules: Working at Heights Basic Theory and Working at Heights Practical.

3.1. Working at Heights Basic Theory Module

The Working at Heights Basic Theory module contains the following:

- a) Rights and responsibilities related to working at heights under the Occupational Health and Safety Act;
- b) General hazard recognition for working at heights;
- c) Hierarchy of controls;
- d) Safety procedures for warning methods and physical barriers;
- e) Safety procedures for ladders and similar equipment; and
- f) An introduction to personal fall protection equipment.

3.2. Working at Heights Practical Module

The Working at Heights Practical module contains the following:

- a) Barriers and safety nets;
- b) Personal fall protection equipment;
- c) Anchor points;
- d) Work positioning systems, work access and platforms; and
- e) Rescue planning.

4. Requirements

The Working at Heights Basic Theory module must be successfully completed before the Working at Heights Practical module is taken.

Employers shall supplement any training program that meets the requirements of this training program standard with additional information, instruction and training in workplace-specific policies and procedures and workplace-specific equipment related to working at heights. In addition, employers must ensure that they meet the training and other requirements in the Occupational Health and Safety Act and its regulations.

5. Design

The training program must be designed to allow learners to achieve the learning outcomes set out in this standard for the Working at Heights Basic Theory module and the Working at Heights Practical module, if applicable.

The training program must meet the following criteria:

- a) Compliance with adult learning principles:
 - i. Ensuring learners know why they need to learn specific content, its relevance to them and their workplace;
 - ii. Relating learning to training participants' own experiences in situations that simulate actual application in the workplace;
 - iii. Challenging training participants using a variety of activities that allow opportunity for participation, feedback and interaction;
 - iv. Recognizing limits of attention span and various ways that adults learn; and
 - v. Using realistic activities and tools to support transfer of learning to the workplace.
- b) Language and literacy level appropriate for the learners;
- c) Content accurate, current, and with all legal and technical information referenced and verified;
- d) Use of a variety of teaching aides such as audio-visual, equipment, safety devices and measuring/monitoring equipment;
- e) Learner materials follow principles of instructional writing and good graphic design; and
- f) Compliance with the requirements of the Occupational Health and Safety Act and its regulations.

6. Delivery Mode

Regardless of the delivery mode, all approved Working at Heights training programs must meet the requirements of this standard and the delivery mode must support the learner's ability to attain the applicable learning outcomes.

6.1. Face-to-Face Learning

For the Working at Heights Basic Theory module, the maximum ratio of learners to instructor will be twenty-four (24) to one (1). For the Working at Heights Practical module, which includes hands-on demonstration of some of the learning outcomes, the maximum ratio of learners to instructor will be twelve (12) to one (1).

The following are the minimum hours for training delivery:

- a) Working at Heights Basic Theory module - 3 hours.
- b) Working at Heights Practical module – 3.5 hours.

Timing for delivery of this training program may be extended for various reasons, such as the amount of equipment available for demonstration of learning outcomes, instructor experience, and/or the learning needs of the training participants.

6.2. eLearning and Blended Learning

eLearning is only an acceptable delivery method for the Working at Heights Basic Theory module if it includes provisions for interactivity with a qualified instructor. eLearning is not an acceptable delivery method for the Working at Heights Practical module.

Program components delivered by eLearning must meet the CPO's eLearning Instructional Design Guidelines.

When eLearning is combined with face-to-face training, the result is referred to as blended learning. For a blended learning training program, the two sections of the course must be well integrated. For blended learning, evaluation must support and validate that the learning outcomes covered by the eLearning portion of the course have been adequately met by the learner.

6.3. Distance Learning

All distance learning must include plans for interactivity with a qualified instructor.

For the Working at Heights Basic Theory module, distance learning such as training via a live video link is an acceptable delivery method, but distance learning is not acceptable for the Working at Heights Practical module.

7. Resource Materials

The following resource materials for instructors and learners must be developed.

7.1. Learner Materials

Learner materials must:

- a) Clearly describe learning objectives, agenda, training content and evaluation/testing;
- b) Clearly indicate the date and version number of the materials; and
- c) Include, at a minimum:
 - i. Terms and definitions;
 - ii. Worksheets for learning activities, exercises, role plays and case studies;
 - iii. Job aids, tools and templates;
 - iv. Excerpts from the Occupational Health and Safety Act and its regulations regarding working at heights that are relevant to the sectors in which the learners work; and
 - v. Participant manual.

7.2. Instructor Materials

Instructor materials must:

- a) Clearly describe learning outcomes and training content;
- b) Clearly describe instructional methods, learning activities and lesson plan timing;
- c) Clearly indicate the date and version number of the materials; and
- d) Include, at a minimum:
 - i. Instructor manual and lesson plans with detailed, step-by-step instructions to guide the instructor through the lessons, including what materials will be used to deliver the topic, the instructional methods, the learning activities, timing and equipment needed;
 - ii. Audio-visual resources;
 - iii. Presentation materials;

- iv. Answer sheets for the learning activities, exercises, role plays, case studies and tests;
- v. Evaluation tools;
- vi. A copy of the Occupational Health and Safety Act;
- vii. A copy of the regulations that are relevant to the sectors in which the learners work; and
- viii. Manufacturers' instructions for the equipment used by the instructor in the delivery of the training program.

8. Equipment

For the Working at Heights Practical module, learners must have hands-on, practical experience and must be trained on the proper use, care and limitations of the personal protective equipment (PPE) listed below. The PPE provided must comply with or exceed equipment specific National Standards of Canada / Canadian Standards Association technical standards, as applicable. The equipment must also comply with the requirements of the Occupational Health and Safety Act and regulations as applicable.

8.1. Equipment for Demonstration of Learning Outcomes

The equipment listed below must be used for the delivery of the Working at Heights Practical module. The ratio of equipment available to learner shall be 1:3 (i.e. at least four sets of equipment for 12 learners).

- Type A harnesses with tongue buckles (variety of sizes);
- Type A harnesses with mating buckles (variety of sizes);
- Single leg lanyards (with energy absorber);
- Lifelines with snap hooks adequate for learning purposes;
- Rope grabs;
- Carabiners; and
- D-bolt anchors.

8.2. Other Equipment

The equipment listed below must be used in the delivery of the Working at Heights Practical module so that learners become familiar with the look and function of this equipment. The ratio of equipment available to learner shall be at least 1:12:

- Non-Type A harnesses (such as ADELP harness and cross-over harness);
- Various lanyards (such as with no energy absorbers, with various levels of energy absorbers, Y lanyard, tie-back lanyard, Type 1 self-retracting lanyard);
- Various rope grabs;
- Various lifelines (such as with carabiner and thimble);
- Leg stirrups;
- Various hooks (such as snap hook with swivel, rebar hook); and
- Various anchors (such as cross-arm anchor connector, one-time use roof anchor, disposable concrete anchor).

8.3. Damaged Equipment

The equipment listed below must be used in the delivery of the Working at Heights Practical module so that learners are able to identify and inspect this equipment for damage. The ratio of equipment available to learner shall be at least 1:12:

- Type A harness (with tongue and mating buckles); and
- Single leg lanyards (with and without energy absorbers).

9. Learning Outcomes

The training program must meet the following learning outcomes:

Employers will need to supplement any training program that meets the requirements of this training program standard with additional information, instruction and training in workplace-specific policies and procedures and workplace-specific equipment related to working at heights.

9.1. Working at Heights Basic Theory Module

9.1.1. Rights and Responsibilities

By the end of this session learners will be able to:

- a) Identify the roles and responsibilities of the employer, constructor (if applicable), supplier, supervisor and worker, with respect to working safely at heights;
- b) Describe three worker rights with regards to working at heights and how a worker would take steps to exercise them;
- c) Explain that all workers have a duty to report to their supervisor or employer any fall hazard or defect in fall prevention/protection equipment of which they are aware and which may endanger themselves or another worker;
- d) Explain that an employer is prohibited from threatening to fire or dismiss workers for exercising their health and safety rights with respect to working safely at heights, or for asking their employer or supervisor to do what the Occupational Health and Safety Act requires;
- e) Explain that the Ministry of Labour enforces the Occupational Health and Safety Act and its regulations, and that Ministry inspectors may make orders, requirements and may initiate prosecutions, where appropriate, for non-compliance with requirements for working safely at heights; and
- f) Explain the types of help and resources available through the Ministry of Labour's website www.ontario.ca/labour and the purpose of the Ministry of Labour's 1-877-202-0008 telephone line.

9.1.2. Identification of the Hazards of Working at Heights

By the end of this session learners will be able to:

- a) Recognize hazards of working at heights;
- b) Recognize other hazards where workers are exposed to the hazard of falling from heights (i.e. into water, machinery, electrical equipment, hazardous substances or objects);
- c) List typical accidents and injuries related to working at heights in the workplace;
- d) Identify the frequency, severity and consequences of injuries and fatalities due to falls from heights (morale, family, society, reputation); and
- e) Explain the role of safe work plans and procedures in identifying hazards of falling from heights.

9.1.3. Eliminating or Controlling the Hazards of Working at Heights

By the end of this session learners will be able to:

- a) Explain the hierarchy of controls (such as elimination, isolation, engineering, substitution, administrative or PPE), related to working at heights;
- b) Utilizing realistic workplace scenarios (for barriers, access equipment, positioning equipment and Personal Protective Equipment), use the hierarchy of controls to choose the preferred method of working safely at heights; and
- c) Explain the limitations of personal protective equipment.

9.1.4. Warning Methods and Physical Barriers

By the end of this session learners will be able to:

- a) Describe the types of warning methods (signs and bump lines), and physical barriers (fencing, guard rails, protective coverings), and their appropriate use;
- b) Identify the characteristics and appropriate uses of permanent and temporary guard rails; and
- c) Explain which precautions are necessary when relocating or removing guardrails.

9.1.5. Ladders and Similar Equipment

By the end of this session learners will be able to:

- a) Identify a minimum of three types of portable ladders and similar equipment and their limitations;
- b) Explain the advantages and disadvantages of ladders and similar equipment for working at heights;
- c) Identify that there are different regulatory requirements for ladders in different sectors and that these requirements may place restrictions on the type of work which may be performed for working at heights from a ladder;
- d) Identify and assess situations in which ladders could be used safely for working at heights, and when alternative means of access would be more appropriate;
- e) Explain how to properly inspect and care for ladders and similar equipment;
- f) Describe how to safely position and use ladders; and

- g) Explain that if you are asked to use a ladder or similar equipment for working at heights at your workplace, you may need additional workplace specific information, instruction, or training by your employer.

9.1.6. Personal Fall Protection Equipment

By the end of this session learners will be able to:

- a) Explain when a travel restraint system, fall restricting system or fall arrest system would be required and the essential components of each; and
- b) Identify that more extensive training is essential to safely use a travel restraint system, fall restricting system or fall arrest system.

9.2. Working at Heights Practical Module

9.2.1. Barriers and Other Fixed Equipment

By the end of this session learners will be able to:

- a) Identify situations in which bump lines, barriers, guardrails and safety nets would be appropriate;
- b) Identify the regulatory requirements (if any) for bump lines, barriers, guardrails and safety nets;
- c) Identify the limitations of bump lines, barriers, guardrails and safety nets;
- d) Identify the specific requirements for strength and design of temporary guard rails.

9.2.2. Personal Fall Protection Equipment

By the end of this session learners will be able to:

- a) Discuss the limitations and the appropriate application of travel restraint, fall restricting and fall arrest systems;
- b) Identify the fall protection regulatory requirements (where applicable) for travel restraint, fall restricting and fall arrest systems;
- c) Discuss the fundamental components of travel restraint, fall restricting and fall arrest systems;
- d) Determine the fall distance to prevent a worker from striking the ground or an object below;
- e) Discuss the force required to deploy a shock absorber

- f) Define and explain the effects on the human body of "bottoming out", the pendulum effect, and suspension trauma;
- g) Describe the steps required for the proper set up, use, maintenance and storage of travel restraint and fall arrest equipment (harness, lanyard, lifeline, rope grab, , snap and grab hooks, carabiners);
- h) Demonstrate an ability to inspect and identify deficiencies in industry-standard personal fall arrest equipment;
- i) Demonstrate how to appropriately "don" and "doff" (i.e. put on and take off) industry-standard personal fall arrest equipment, including harness and lanyard;
- j) Describe how to protect horizontal and vertical lifelines while in use;
- k) Describe the appropriate set-up and use of a rope grab for personal fall arrest systems and ladder use;
- l) Explain methods to maintain tie-off at all times to an anchor point when changing anchor points; and
- m) Describe possible situations where you may need additional workplace specific information, instruction or training by your employer if you are asked to use fall protection equipment in your workplace.

9.2.3. Anchor Points

By the end of this session learners will be able to:

- a) Explain what an anchor point is;
- b) Discuss the appropriate location and use of anchor points;
- c) Provide examples of appropriate and inappropriate anchor points;
- d) Identify the consequences of using inappropriate items as anchor points;
- e) Illustrate the differences between permanent anchors, temporary fixed supports, and existing structural features as anchor points;
- f) Discuss the importance of manufacturer's recommendations when installing new anchor points and, where necessary, approval of anchor points by a professional engineer; and
- g) Explain the importance of asking for information before using new anchor points.

9.2.4. Work Access Equipment and Platforms

By the end of this session learners will be able to:

- a) Using the hierarchy of controls, identify the different types of equipment that may be available to safely perform a variety of tasks at heights. This includes Powered Elevating Work Platforms (PEWPs), scaffolds, ladders, suspended access equipment, and boatswain's chairs. For ladders, regulatory restrictions and criteria for safe use and positioning shall be identified ;
- b) Provide examples of the types of personal fall protection equipment that is needed to safely work at heights on work access equipment and platforms; and
- c) Explain that if you are asked to use, work access equipment, platforms, or similar equipment in your workplace, you may need additional workplace specific and/or equipment specific information, instruction or training.

9.2.5. Rescue Planning

By the end of this session learners will be able to:

- a) Explain the purpose of a working at heights fall rescue plan;
- b) Identify key components of a fall rescue plan;
- c) Discuss the roles and responsibilities of employers, supervisors and workers in regards to a fall rescue plan and emergency procedures; and
- d) Explain that each project where workers rely on fall protection equipment (such as PPE and safety nets) must have a site specific rescue plan and that information, instruction or training on the site specific rescue plan is necessary.

10. Learner Evaluation

The training program must include a plan for learner evaluation which meets the requirements below. There must be a variety of evaluation methods available to the instructor and/or evaluator, which are appropriate to the learning outcomes.

10.1. Written Tests and Alternative Evaluation Methods

- a) There must be a written test either at the end of each module or at the end of the whole training program. The purpose of the written test is to verify that the key concepts have been understood by learner. The learner must obtain a minimum of 75% in order to successfully complete the training program. After a learner has successfully completed the test, the evaluator must review incorrect answers

with the learner in order for him or her to successfully complete the training program.

- b) For learners with language, literacy or accommodation needs, alternative evaluation methods to written tests may be employed to verify that key concepts have been understood by the learner. These alternative evaluation methods must be clearly outlined in the evaluation plan and the corresponding results must be documented by the evaluator.

10.2. Evaluation of Demonstration Learning Outcomes

- a) Learning outcomes requiring demonstration (sections 9.2.2(h), 9.2.2(i), 9.2.2(l)) must be performed satisfactorily in order to successfully complete the Working at Heights Practical module.
- b) For learners with language, literacy or accommodation needs, alternative evaluation methods may be employed to verify satisfactory demonstration of learning outcome by the learner. These evaluation methods must be clearly outlined in the evaluation plan and the corresponding results must be documented by the evaluator.

11. Validity and Refresher Training

Learners who have successfully completed an approved Working at Heights Training Program must periodically refresh their training in order to maintain its validity. This supports learners in maintaining their foundational knowledge and skills for working safely at heights.

11.1. Validity of the Training Program

Successful completion of a working at heights training program includes the completion of both the Working at Heights Basic Theory module (section 9.1) and the Working at Heights Practical module (section 9.2) in accordance with the criteria set out in this standard and the Working at Heights Training Provider standard. Working at heights training remains valid for a period of three years from the date of successful completion.

11.2. Refresher Training

Refresher training can be achieved by successfully completing the Working at Heights Practical module (section 9.2) in accordance with the criteria set out in this Standard and the Working at Heights Training Provider Standard. Successful completion of the refresher training will re-validate a learner's working at heights training for another three year period from the date of successful completion of the refresher.

Learners must have previously successfully completed both modules of an approved Working at Heights training program to be eligible for refresher training.

Appendix A: Glossary of Terms – General

Blended Learning

Describes the practice of using several training delivery mediums in a single training program. It typically refers to the combination of classroom instruction and eLearning.

Distance Learning

An educational situation in which the instructor and students are separated by time, location, or both. Education or training courses are delivered to remote locations via synchronous or asynchronous instruction (ASTD definition).

E-Learning (Electronic Learning)

A term covering a wide set of applications and processes that includes web-based learning, computer-based learning, virtual classrooms, and digital collaboration.

Face-to-face Training

Usually refers to traditional classroom training, in which an instructor teaches a course to a room of training participants. The term is used synonymously with on-site training and classroom training and instructor-led training (slightly modified from ASTD definition).

Module

A unit of instruction that can be measured, evaluated for change, assembled to form complete courses, or bypassed as a whole, and usually is intended to teach one or a group of skills or areas of knowledge (slightly modified from ASTD definition).

Evaluator

A person who evaluates learners.

Instructor

A person who delivers training programs.

Qualification

A skill, quality, or attribute that makes somebody suitable for a job, activity or task.

Subject Matter Expert (SME)

A person who has extensive knowledge and skills in a particular subject area (ASTD definition).

Appendix B: Glossary of Terms – Working at Heights Standards

Fall Arrest System

An assembly of components joined together so that when the assembly is connected to a fixed support, it is capable of arresting a worker's fall.

Fall Restricting System

A type of fall arrest system that has been designed to limit a worker's fall to a specified distance.

Fixed Support

A permanent or temporary structure or a component of such a structure that can withstand all loads and forces the structure or component is intended to support or resist and is sufficient to protect a worker's health and safety, and includes equipment or devices that are securely fastened to the structure or component.

Full Body Harness

A device that can arrest an accidental vertical or near vertical fall of a worker and which can guide and distribute the impact forces of the fall by means of leg and shoulder strap supports and an upper dorsal suspension assembly which, after the arrest, will not by itself permit the release or further lowering of the worker.

Guardrail System

An assembly of components joined together to provide a barrier to prevent a worker from falling from the edge of a surface.

Safety Belt

A belt worn around the waist of a worker and all the fittings for the belt appropriate for the use being made of it.

Safety Factor

The ratio of the failure load to the specified load or rated load.

Safety Net

A safety net that complies with section 26.8 of Ontario Regulation 213/91, and is located and supported in such a way that it arrests the fall of a worker who may fall into it without endangering the worker.

Travel Restraint System

An assembly of components capable of restricting a worker's movement on a work surface and preventing the worker from reaching a location from which he or she could fall.

Work Belt

A belt that has a back support pad and a connecting hook at the front and that is capable of supporting a worker.