THE NATIONAL SAFETY ASSOCIATION FOR CANADA'S ENERGY INDUSTRY

Authorized Training Providers Licensed Course Equipment List

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AUTHORIZED ENERGY SAFETY CANADA TRAINING PROVIDER

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Introduction

As an Authorized Training Provider (ATP), you are a valued partner and extension of the Energy Safety Canada (ESC) team. ATPs are part of a network that ensures workers in Canada's energy industry have access to quality safety training wherever they work or live. This document is intended to help you:

- Determine which ESC Licensed Courses are suitable for you to offer at your place of business.
- Add additional training locations and course offerings to your ESC account.

What do we mean by course equipment?

ESC courses have various equipment requirements so that Certified Instructors can effectively teach the course content to students. All Licensed Courses share some requirements that must be declared to offer any ESC Licensed Course; this information can be found below in General Facility Requirements.

Some Licensed Courses have specific requirements that are unique to them, such as SCBA tanks for H_2S Alive® or a telescopic tripod for Fall Protection. All equipment required for ESC courses **must be inspected, serviced and cleaned as per regulatory or manufacturer requirements.** It is the ATPs' responsibility to be aware of and maintain the schedules of those requirements.

Although ESC may approve a training location based on general facility requirements, specific course equipment must also be declared and approved before the corresponding course can be offered.

How to use the equipment lists

Equipment lists inform a training company of:

- ESC course-specific equipment that a training site must be able to support
- Photo requirements as a declaration for proof of equipment

Applying to offer ESC courses

All ATPs must meet the requirements in this guide before applying to offer ESC courses.

New ATP Applicants

1. Declare a permanent location: New applicants must declare at least one training location when they submit their full ATP application. ESC then lists those locations as permanent locations in its records.
2. Submit general facility and course-specific equipment photos: New applicants must submit general facility photos during Stage 1 of the application process and course-specific equipment photos during Stage 2. The application provides more information on how to submit photos to ESC.

General facility requirements

Must be met to offer any ESC Licensed Course.

- Adequate student and staff parking
- Clearly visible muster point or assembly area
- Accessible fire extinguisher, first aid equipment and fire exit
- Emergency Response Plan posted for students to see
- Washrooms
- Classrooms with student tables and seating
- Adequate audio and visual equipment appropriate for each space (e.g. PowerPoint projection and display)
- Comfortable learning environment free of noisy distractions and with properly functioning HVAC
- Whiteboard, or flipchart
- No through-traffic during course instruction (people, equipment or vehicles)

The following licensed classroom courses have no additional equipment requirements:

- Common Safety Orientation
- Confined Space Entry Monitor
- Oilfield Driver Awareness

Student Personal Protective Equipment (PPE) requirements

ESC courses may require personal protective equipment (PPE) for practical exercises (e.g., fall harnesses, fire-resistant coveralls, etc.).

This guide specifies whether an ATP must provide PPE to students. ATPs must procure enough PPE for students to complete the course activities safely.

PPE must be properly cleaned between uses.

ATPs must communicate the PPE requirements to the students during the registration process if they are required to bring their own PPE

If a student cannot meet proper PPE requirements, they may not continue with the course and be asked to reschedule.

ATPs should follow regional regulations, manufacturer specifications and be aware of industry best practices, which may require additional PPE for the work conditions where the practical exercises occur.

They should also notify and ensure students are equipped with the appropriate PPE for weather conditions.

General online course requirements

ATPs have exclusive approval to advertise computer lab space for ESC's online course offerings or exam proctoring.

In addition to general facility requirements, the following must be provided to offer any ESC Online Course:

- Quiet, uninterrupted workspace for each computer workstation
- Computer equipped with webcam, headphones, keyboard and mouse
- Up-to-date operating system and web browser

If you are interested in setting up a computer lab for ESC courses, contact Evaluations@EnergySafetyCanada.com.

1.0 H_2S Alive®

Required Equipment

Self-Contained Breathing Apparatus (SCBA)	• Minimum of 1 SCBA unit (harness assembly, air cylinder and regulator assembly) per five students. *Note* For instructional purposes, cylinder(s) only requires enough air for practical course components
Regulators	• Any SCBA unit, where the user breathes directly through the regulator, must be properly cleaned according to manufacturer's specifications between users. Regulators may not be cleaned during class.
Facepiece Assembly (Mask)	• Minimum 1 per student plus 1 for instructor
Manikin (Rescue Dummy)	• Minimum 1 manikin of adequate size and flexibility to perform the rescue drag exercises ○ 50 lbs maximum ○ Must have a head and moveable extremities ○ Dressed in blue, collared coveralls with high visibility striping

Backup Equipment

This equipment should be available in the event that the demo video cannot be played.

Gas detection devices, detector tubes and electronic monitors	• 1 Piston-type detector tube device; OR • 1 bellows-type detector tube device *NOTE: Detector tubes must be specific for the device.* ○ 1 pair of safety glasses for the instructor ○ 1 tube breaker, if required ○ 1 biohazard disposal container for broken tubes ○ 1 pair of gloves for the instructor ○ 1 personal electronic gas detection monitor, calibrated and functional ○ 1 cylinder of bump gas (must not be expired) ○ Record logs and manufacturers' manuals for all monitors ○ 1 sensor cover with tubing or bump station with compatible gas • Detector tubes (expired tubes may be used for in-class demonstration if box is clearly marked "Classroom Training Only")

Optional Equipment

Supplied Air Breathing Apparatus (SABA)	• Valuable to show and explain

2.0 H2S Alive® Blended Renewal

Required Equipment

Self-Contained Breathing Apparatus (SCBA)	• Minimum of 1 SCBA unit (harness assembly, air cylinder and regulator assembly) per five students *Note* For instructional purposes, cylinder(s) only requires enough air for practical course components
Regulators	• Any SCBA unit where the user breathes directly through the regulator must be cleaned according to manufacturer's specifications between users. Regulators may not be cleaned during class.
Facepiece Assembly (Mask)	• Minimum 1 per student plus 1 for instructor
Manikin (Rescue Dummy)	• Minimum 1 manikin of adequate size and flexibility to perform the rescue drag exercises. ○ 50 lbs maximum ○ Must have a head and moveable extremities ○ Dressed in blue, collared coveralls with high visibility striping

3.0 Detection and Control of Flammable Substances

Required Equipment

All Classes	• 1 portable catalytic combustible gas monitor per 4 students
	  ○ Only a functional LEL (Lower Explosive Limit sensor) sensor is required
	  ○ record logs and manufacturers' manuals for all monitors

For a class of 13 - 20 students	• 2 active monitors, one of them calibrated to methane or propane:
	  ○ 1 motorized
	  ○ 1 non-motorized with 3 ft sampling hose
	• 3 passive monitors, both calibrated to methane or propane
	• 1 hand aspirator sample draw pump and 3 ft sampling hose
	• 1 Infrared Radiation (IR) monitor calibrated to any of the above gases (optional)
	• 5 record logs and manufacturer's manuals for all monitors
	• Appropriate calibration/function adapters for each monitor
	• 5 sample gas cylinders, methane or propane (see last section of this table for specifics)
	• 5 flow regulators with specific flow rate for monitor used (e.g., 0.3, 0.5 or 1.0). Sample hose adapters for each cylinder regulator
	• 2 AC/DC monitor wall chargers
	• MSDS for non-reactive gases. (Sheets must be dated from within 3 years and easily accessible

For a class of 1 - 12 students	• 1 passive monitor, calibrated to methane or propane and 2 active monitors as described above • 1 hand aspirator sample draw pump and 3 ft sampling hose • record logs and manufacturer's manuals for all monitors • Appropriate calibration/function adapters for each monitor • Sample gas cylinders, methane or propane (see last section of this table for specifics)

	• 1 AC/DC monitor wall charger • 3 flow regulators with specific flow rate for each monitor used (e.g., 0.3, 0.5 or 1.0). Sample hose adapters for each cylinder regulator and appropriate calibration/function adapters • Safety Data Sheet for non-reactive gases. (Sheets must be dated within 3 years)
Methane	• Test gas mix of 2.5 %/50% LEL Methane/balanced air
Propane	• Test gas mix of 1.1%/50% LEL Propane/balanced air

4.0 Fall Protection

Required Equipment

CSA-approved harness	• 1 Type D (suspension and controlled descent) • 1 Type E (limited access) • 1 Type L (ladder climbing) • 1 Type P (work positioning)

Anchor connectors	• Minimum 4. Examples include:
	  ○ 6 ft cable sling with manufacturer-approved connector
	  ○ 4 ft web pass through adapter
	  ○ 1 D-ring concrete anchor, plate anchor, or bolt anchor connector

Self Rescue demonstration equipment	• Minimum 1 man-rated telescopic tripod, davit arm or engineered anchor point in conjunction with SRL/SRD-R or an appropriate man-rated raising and lowering system

Snap hooks	• Minimum of 3 different shapes/sizes of snap hooks. One of the following must have a gate strength of 16 kN
	  ○ Scaffold snap hook
	  ○ Snap hook
	  ○ Pistol grip snap hook

Carabiners	• Minimum of 3 auto-locking carabiners. One of the following must have a gate strength of 16 kN
	  ○ Scaffold
	  ○ Pear-shaped
	  ○ D-shaped
	  ○ Modified D-shaped

Energy absorbing lanyard	• Minimum 1 adjustable energy-absorbing web lanyard • E4 or E6
Rope lanyard	• 4 or 6 ft length
Webbed lanyard	• Minimum 1

Steel cable lanyard	• Minimum 1
Adjustable lanyard	• Minimum 1
Twin leg lanyard	• Minimum 1
Deployed energy absorber (EA)	• E4, E6 or new CSA Z259.11-17 EAs
Energy absorber (EA)	• E4 or E6 and a new CSA Z259.11-17 PEA
Self-retracting lifeline/ self-retracting device (SRL/SRD)	• Minimum 1 Type 1, Type 2 or Type 3 SRL (Self-retracting lifeline) • Minimum 1 current CSA standard-SRD (Self Retracting Device) of either classification: SRL, SRL-LE (leading edge), SRL-R (rescue) or SRL-LE-R (leading edge/rescue)
Vertical rope lifeline system ○ Lifeline ○ Synthetic rope fall arrester ○ Tension weight	• Lifeline to match fall arrester for size and type • Minimum 10 ft synthetic rope lifeline
Damaged equipment for inspection exercise	• Minimum 10 items marked: • Danger – Do not use! For training use only. • Ensure equipment is numbered and accounted for at the end of each training session. Place damaged equipment in a locked environment to ensure it is not used. Example of damages on soft goods: • Discoloration UV ray exposure, chemical or heat • Pulled stitching • Excessive wear • Cuts, holes, tearing, fuzzy • Welder splatter burns, fused fibres, melted • Knots or kinks Example of damages on hard goods: • Discoloration • Excessive wear • Splicing and thimbles loosening

	• Swaging crimps damaged • Kinks, bird nesting (caging) • Corrosion • Bent closures • Latch mechanism broken or misaligned

Student Personal Protective Equipment (PPE)

It is recommended that an ATP have the following PPE on hand for students taking Fall Protection. Various sizes should be available to fit all body types, ensuring students can perform practical exercises safely (e.g., fall harnesses) and be CSA-approved where applicable.

If the ATP does not provide the items, it must be communicated to each student registering for the course that they need to bring the items themselves. Students unable to meet the PPE requirements to participate safely may not attend the training.

CSA Approved Harness	Type A (Fall Arrest) • 1 per 2 students

5.0 Fall Protection for Rig Work

Required Equipment

At-grade training device	• Rated for 5,000 lbs • Bolted or welded on D-ring (Dorsal ring) • 1 inch eye bolt or pad eye
Travel restraint anchors	• Minimum height waist-high • 2 or 3 separate locations • D-ring (Dorsal ring) plates/bolts
At-height training device Fixed ladders Fall arrest anchors Racking board (Monkey board)	• Minimum of 18 ft • 2 - must be certified • Spaced a minimum of 6 ft apart, or with a barrier between ladders, to prevent contact between students. Spacing must permit adequate supervision of students on both ladders. • Certified by a professional engineer for up to 5,000 lbs per person • 2 separate anchor connections above each ladder: 1 for student self-retracting lanyard (SRL), rope or cable system (depending on lesson), and 1 for SRL/rescue or another means to accomplish rescue • Self-retracting Lifeline (SRL), rope and cable systems to be installed and used in accordance with manufacturer's specifications • 2 separate anchor connections above monkey board • Minimum of 10 ft high • A means to ensure ground-level monkey board training
Means of suspension	• A davit arm or tripod with manufacturer's specifications or professional engineer's certification
Defective equipment	Example of damages on soft goods: • Discoloration UV ray exposure, chemical or heat • Pulled stitching • Excessive wear • Cuts, holes, tearing, fuzzy • Welder splatter burns, fused fibers, melted • Knots or kinks

	Example of damages on hard goods: • Discoloration • Excessive wear • Splicing and thimbles loosening • Swaging crimps damaged • Kinks, bird nesting (caging) • Corrosion • Bent closures • Latch mechanism broken or misaligned
Web pass thru adaptor	• Minimum 1
Cable choker	• Minimum 1
Cable anchor sling	• Minimum 1
Web Choker	• Minimum 1
Snap hooks	• 2 scaffold or ladder snap hooks • 2 standard snap hooks Note: Not all snap hooks have to be integral
Carabiners (locking)	• 2 standard carabiners. These are typical locking carabiners used for securing ropes, harnesses, or other equipment. They have a locking mechanism to prevent accidental openings. • 2 large scaffolds. These are larger carabiners designed for use with scaffolding. They have a bigger gate opening to accommodate larger anchor points or structures
Lanyards	• 1 wire rope with energy absorber • 2 4 ft rope positioning • 1 (1 X 3') shock absorbing web • 1 (1 X 6') fixed rope • 1 (1 X 6') adjustable web lanyard • 2 double leg lanyards with ladder snap hooks • 1 tie back lanyard (single or double) • 1 cable lanyard with energy absorber

Vertical rope lifeline system	• 2 synthetic rope lifeline systems attached to appropriate anchorage • 2 Tensioning weights for the lifelines • 2 Synthetic rope Fall arresters designed for use with lifelines • 2 Lanyards: must meet the manufacturer's specifications for lifeline arrester (if not integral). Note: Typically these are a 3-foot energy-absorbing lanyard
Additional requirements:	• Permanent cable ladder system with fall arrester • Minimum of 1 temporary cable ladder system with fall arrester • Minimum of 1 SRL and 1 SRL-R • Minimum of 2 Self-retracting Lifelines (SRLs) reaching ground level, 1 above access ladder and 1 above monkey board for student training • Separate fall arrest system for instructor at Racking Board (monkey board) • Certified Instructors must have access to a ladder and fall arrest system to perform rescues as necessary • Descent fall-arrest system for alternate descent ladder. Can include: • Permanent ladder cable system • Temporary ladder cable system • Additional SRL • Taglines for each Self-Retracting Lifeline (SRL) on the climbing device • Emergency first aid kit meeting current CSA standard requirements for kits based on the number of employees and workplace type

Student Personal Protective Equipment (PPE)

It is recommended that an ATP have the following PPE on hand for students taking Fall Protection for Rig Work. Various sizes should be available to fit all body types, ensuring students can perform practical exercises safely (e.g., fall harnesses) and be CSA-approved where applicable.

If the ATP does not provide the following, it must be communicated to each student registering for the course that they need to bring the following items themselves. Students unable to meet the PPE requirements to participate safely they may not take the course.

Full body harnesses	• Harnesses for students must be APDL (Personal Fall Arrest, Suspension and Descent, Ladder Climbing, and Work Positioning) and come with an approved shock absorber. Each harness needs 2 rings at side of waist and 1 at the back for work positioning. CEN (European standards), CSA (Canadian Standards) or ANSI (US standards) approved only.

6.0 Fall Rescue for Rig Work

Required Equipment

Drilling rig, service rig or rig simulator	Simulators must meet the minimum guidelines as outlined below
Rescue stretcher	Must be man rated with 4-point lifting points, adjustable 4-point lifting bridle and patient securing straps for horizontal and vertical stretcher orientation • Rescue mannikin with a CSA class-AL harness minimum to suspended mannequin for rescue scenarios.
Backboard	• Minimum of 1, must have securing system for patient to backboard
Bypass lanyard system	• Minimum of 2 energy absorbing double leg lanyards with auto scaffold hooks
Taglines	• Minimum of 3 taglines 8mm (3/4 in.) or larger in diameter • Minimum 30 m (100 ft.) c/w auto lock carabiner and rope bag
Carabiners	• Minimum of 2 auto-locking scaffold carabiners • Minimum of 10 auto locking steel carabiners rated by manufacturer for safety and performance.
Anchor connectors	• Minimum of 4 approved anchor connectors compatible with the diameter or thickness of the drilling rig, service rig, or rig simulator course is taught on.
Pulleys	• Minimum of 2 double rescue pulleys sized for Life Safety Rope diameter • Minimum of 2 single pulley sized for Life Safety Rope diameter • Must meet NFPA 1983 - Life Safety Rope and Equipment for Emergency Services requirements
Fall arrest systems	• Minimum of 3 fall arrest systems, retractable lifelines or synthetic rope fall arresters, per CEN, CSA or ANSI standards
First aid kit	• Minimum of 1 emergency first aid kit per provincial regulations
Web or rope lanyards	• Minimum of 2 1.2 m (4 ft.) rope work positioning lanyards
Adjustable lanyard	• Minimum of 2 1.8 m (6 ft.) or longer adjustable lanyard
Rescue system	• Minimum of 1 pre-rigged rescue system minimum of 4:1 mechanical advantage.

	• Components to conform to strength requirements NFPA 1983 - Life Safety Rope and Equipment for Emergency Services
Life Safety Rope	• Minimum of 2 life safety ropes MBS of not less than 40 kN (8,992 lbf) • Minimum elongation of not less than 1% at 10% of the breaking strength • Maximum elongation of not more than 10% at 10% of the breaking strength • Diameter of 11 mm (7/16 in) to 16 mm (5/8 in) (Recommend 12.5 as it is easier to form ties, knots and hitches)
Rescue rope grab	• Minimum of 1 pre-sewn prussic loop • Minimum of 1 non-rope damaging rescue rope grab device
Descent control devices	• Minimum of 2 different descent control devices, 1 with anti-panic function
Progress capture devices	• Minimum of 2 different progress capture devices
Minimum guidelines for rig simulator	• Sufficient clearance for fall arrest protection system • Minimum size and configuration of a Racking (monkey) board shall be representative of a single service rig or drilling rig and have a current CSA standard-class SRL or SRL Type 2 that reaches the ground • Man-rated tugger or winch system required for raising and lowering personnel shall have a manufacturer's specification or a professional engineer's certification for this purpose • The rig simulator shall be equipped to provide fall arrest for all personnel above 3 m during fall rescue for rig work • The rig simulator shall have a manufacturer or a professional engineer's certification • Professional Engineer (PE) certification is a credential that signifies an engineer's competency and commitment to high standards of practice • At minimum, the simulator shall have 2 rated ladders with and have a current standard class SRL or SRL type 2 for fall protection that reach the ground level • Rated Ladders: These ladders meet specific safety standards and are certified for use in the simulator • Type 2 SRLs and SRD class SRL: must be anchored above the user's dorsal d ring so no free fall exists. They also must reach the ground level.

Student Personal Protective Equipment (PPE)

It is recommended that an ATP have the following PPE on hand for students taking Fall Rescue for Rig Work. Various sizes should be available to fit all body types, ensuring students can perform practical exercises safely (e.g., fall harnesses) and be CSA-approved where applicable.

If the ATP does not provide the items, it must be communicated to each student registering for the course that they need to bring the items themselves. Students unable to meet the PPE requirements to participate safely will be asked to reschedule.

Full body harnesses	• Harnesses for students must be APDL (Personal Fall Arrest, Suspension and descent, ladder climbing, work positioning) and come with approved shock absorber. CEN (European standards), CSA (Canadian Standards) or ANSI (US standards) approved only.

7.0 Fire Watch

Required Equipment

Dry chemical fire extinguisher	• Min 20 lbs (9 kg)
Water extinguisher	• Min 2.5 gallon (9.5 L)
Carbon dioxide extinguisher	• Min 10 lbs (4.5 kg)
Underwriters Laboratories (UL) approved fire blanket.	• Minimum of 1
Caution flagging	• Sample of caution flagging tape, flags, stickers, etc.

Fire simulation system	• Live fire training unit:
	  ○ must be approved by the local fire authorities
	  ○ proper signage to caution local businesses and the public of live fire training as necessary
	  ○ PPE required for students
	OR
	• Virtual Reality (VR) fire extinguishing simulator
	  ○ To be approved by Energy Safety Canada. Contact Evaluations@EnergySafetyCanada.com for more details

Student Personal Protective Equipment

It is recommended that an ATP have the following PPE on hand for students taking Fire Watch. If the ATP does not provide these items, it must be communicated to each student registering for the course that they need to bring the following items themselves. Students unable to meet the PPE requirements to participate safely will be asked to reschedule.

PPE - While extinguishing a live fire	Minimum of 1 per student plus 1 for the instructor if conducting live fire training: • Fire Retardant (FR) coverall • Safety glasses • Leather Gloves

8.0 Mobile Elevating Work Platforms

Required Equipment

Mobile Elevated Work Platform (MEWP)	• Type 3, Group B:
	  ○ A Type 3 Group B Mobile Elevating Work Platform (MEWP) refers to a specific classification under the ANSI standards. Here's a breakdown:
	  ○ Type 3: These platforms are self-propelled and can travel while the work platform is elevated. The movement is controlled from the work platform itself
	  ○ Group B: This group includes platforms that can extend beyond the tipping line of the chassis. Boom lifts are a common example
	• Virtual Reality (VR) MEWP simulator
	  ○ To be approved by Energy Safety Canada. Contact Evaluations@EnergySafetyCanada.com for more details

Course Markers	• Pylons, triangles or lighting to mark the path of travel the MEWP will take during training
Fall Protection	• Full body harnesses for all students. (Students may provide their own). • Lanyard with connectors for anchor rings
Practical Exercise Location	• The location of the practical exercises should be safe for the operation of a MEWP for educational purposes. • Hazards (overhead lines or extreme weather) should be identified and MEWP to be operating only within the Manufacturers Guidelines • Students must not be at risk of encountering any structures or objects while going through the operations of the MEWP

Student Personal Protective Equipment

It is recommended that an ATP have the following PPE on hand for students taking Mobile Elevated Work Platforms. If the ATP does not provide these items, it must be communicated to each student registering for the course that they need to bring the following items themselves. Students unable to meet the PPE requirements to participate safely may not attend the course.

PPE - While operating a MEWP	• Full body harnesses for all students. (Students may provide their own). • Depending on site conditions, regional regulations, manufacturer's recommendations and hazard assessment by the ATP. , Additional PPE may be required e.g., CSA-approved hard hat, safety glasses, steel toe boots, and gloves

ESC Corporate Profile

ENERGY INDUSTRY'S SAFETY ALLY

For over 75 years, Energy Safety Canada has been the national safety association for Canada's energy industry. Created by industry, for industry, we are dedicated to keeping energy workers safe and driving safety performance.

What We Do:

- Deliver industry-recognized training to meet industry needs.
- Collaborate with industry to drive continuous safety improvements.
- Provide safety and labour market data, insights and tools.
- Serve as the industry certifying partner for the Certificate of Recognition program.

Proudly Serving Our Industry

We are proud to work on behalf of Canada's energy industry associations.

CAGC 45 · CAOEC Canadian Association of Energy Contractors · CAPP · ENSERVA · EPAC · Pathways Alliance