TOTAL GROUP

SAFETY & EQUIPMENT GUIDE

Safety Equipment Selection for Canadian Utility and Energy Teams

Practical equipment guidance for industrial teams.

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General information only. Confirm site-specific equipment decisions, applicable requirements, and manufacturer instructions before purchase or use.

Utility and energy field teams use safety equipment to help reduce exposure to task-specific hazards when those hazards cannot be eliminated or adequately controlled by stronger measures. Selection is a field decision as much as a purchasing decision: it needs to reflect the work, location, sources of hazardous energy, access, weather, equipment interaction, worker fit, and emergency arrangements.

1 Key Takeaways

- Start with the task, hazard, and available higher-order controls before choosing equipment.
- PPE must match the identified hazard, fit the worker, work with other protection, and be maintained correctly.
- Electrical, work-at-heights, atmospheric, and emergency decisions need written procedures and site-specific planning.
- Visibility, barriers, and site-control tools support the work plan; they are not substitutes for electrical or other protective systems.

2 Begin with the work, hazard, and controls

Field conditions can change quickly. A useful review considers the work activity, location, hazardous-energy sources, fall potential, atmosphere, vehicles and mobile equipment, weather, access, and emergency response. CCOHS places PPE as a lower level in the hierarchy of controls: it is used when higher-level controls are not practicable, do not sufficiently reduce exposure, or added protection is needed for temporary or emergency conditions. CCOHS: Hazard and Risk—Hierarchy of Controls

Equipment should support the defined work method. It should not be used to justify a task that has not been assessed or a control that has not been established.

3 PPE and workwear: fit, compatibility, and field usability matter

CCOHS recommends selecting PPE to match the hazard, considering physical comfort and worker involvement, and checking that items worn together do not interfere with one another. Individual fit, inspection, cleaning, repair, storage, and training are part of the program. CCOHS: Designing an Effective PPE Program

Explore PPE and workwear after the protective function has been identified. The product category does not determine whether a particular item is appropriate for a hazard, working environment, or electrical task.

4 Electrical work: procedure-led selection, not a generic PPE claim

Electrical work needs a task- and site-specific assessment. In WorkSafeBC's high-voltage guidance, where complete isolation is not practicable, written safe-work procedures and the selection, use, storage, testing, and maintenance of appropriate electrical protective equipment form part of the control approach. The guidance is a B.C.-specific regulatory example, not a Canada-wide rule. WorkSafeBC OHS Guidelines Part 19

Do not confuse visibility or line-identification aids with electrical insulation. WorkSafeBC specifically cautions that high-visibility covers used to identify powerlines are not electrically insulating. Confirm the controlling procedure, qualified-person requirements, applicable standard, equipment documentation, and local requirements for the actual work.

5 Work at heights: choose the prevention-and-rescue system

Where the work assessment identifies a fall risk, personal equipment should be considered alongside the full prevention and rescue arrangement. CCOHS says a working-at-heights rescue plan should identify roles, hazards and controls, training, rescue equipment, first-aid resources, communications, access routes, and response procedures. It should be prepared for the task and worksite before work begins. CCOHS: Working at Heights Rescue Plan

Use fall protection and rescue equipment in that system-level discussion. A product alone is not a rescue plan, and an emergency-services call alone is not a complete site rescue arrangement.

6 Gas detection and atmospheric hazards: one part of the work system

Where an assessment identifies a confined-space or atmospheric risk, monitoring may address toxic gases, flammable or explosive gases, and oxygen conditions. CCOHS says testing may be needed before entry, during entry, or continuously depending on the hazards and risks. It also states that task-appropriate equipment, calibration to the manufacturer's instructions, competent operation, and retained results matter. CCOHS: Confined Space—Atmospheric Testing

Review gas detection and atmospheric-monitoring equipment only when the assessed work calls for it. Monitoring is not a guarantee that a space or work area is safe; it is one part of the work or entry program.

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7 Emergency, medical, and site-safety readiness

Emergency resources should align with credible field scenarios, response roles, communications, access, first aid, and equipment availability. Fire and emergency equipment, medical and first-aid supplies, and site-safety equipment can support the relevant arrangements once they have been identified in the site plan.

For utility field work, site controls can include separation, signage, barriers, traffic/pedestrian organization, access management, and staging that makes the work area understandable. These tools support the control strategy; they do not replace isolation, guarding, procedures, or other hazard controls selected for the job.

8 A field-ready selection check

1. Describe the task, energy sources, location, work zone, access, and credible emergency conditions.
2. Identify controls that can eliminate, isolate, guard, separate, or otherwise reduce the hazard first.
3. Choose equipment that addresses the remaining exposure and works with the specified procedure.
4. Confirm fit, compatibility, inspection, maintenance, storage, and worker instruction.
5. Confirm communications, rescue or emergency roles, first-aid resources, access routes, and review triggers.

9 Limits of this guide

This article is general information, not electrical-safety, legal, engineering, or site-specific advice. It does not provide voltage, arc-flash, dielectric, approach-distance, live-work, fall-clearance, anchor, rescue, or detector-selection instructions. Verify requirements with the applicable authority, the organization's procedures, current manufacturer documentation, and qualified technical input for the actual work.

10 Discuss your utility or energy requirements with Total Group

Total Group can help your team frame an equipment discussion around the task, work zone, crew needs, and emergency arrangements. Request information to discuss your requirements.

11 References

- CCOHS — Hazard and Risk: Hierarchy of Controls
- CCOHS — Designing an Effective PPE Program
- WorkSafeBC — OHS Guidelines Part 19: Electrical Safety
- CCOHS — Confined Space: Atmospheric Testing
- CCOHS — Fall Protection: Working at Heights Rescue Plan

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