TOTAL GROUP

SAFETY & EQUIPMENT GUIDE

Choosing High-Visibility Workwear for Site Conditions

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.

Choose high-visibility workwear by matching the garment to the **conditions in which a worker must be seen**, not by colour, price, or vest style alone. Start with moving equipment, sightlines, background, light, weather, required layers, and the time an operator has to recognize a person and react.
High-visibility apparel helps operators and drivers notice workers, but it is only one part of a safe system. **Barriers, pedestrian routes, lighting, traffic controls, equipment aids, supervision, and training remain essential.** Ontario guidance recommends separating workers on foot from vehicles or mobile equipment where possible and treating high-visibility apparel as one element of the overall control plan (Ontario: visibility hazards for vehicles and mobile equipment).2

Key Takeaways

- Begin with a site and task assessment. Light, weather, background clutter, equipment movement, sightlines, and worker distraction all affect the workwear choice.
- Fluorescent background material supports daytime conspicuity; retroreflective material is important when directional light, darkness, or low light is part of the exposure.
- Select a fit and layer system that leaves high-visibility material visible, secure, and comfortable during real work—not just during a fitting-room check.
- Buy for the full service life: confirm documentation, inspect routinely, follow the garment care label, and replace apparel that is worn, badly soiled, or contaminated.

1 Start with the site conditions, not the catalogue

A useful purchasing decision begins with a short visibility assessment for the tasks the garment will support. The Canadian Centre for Occupational Health and Safety (CCOHS) advises considering worker and mobile-equipment interaction, traffic flow and speed, the duration of exposure, environmental background, lighting, weather, distractions, stopping conditions, and operator sightlines before selecting high-visibility safety apparel (CCOHS: High-Visibility Safety Apparel).1

Ask practical questions during the walk-through:

- Where do workers on foot share space with forklifts, haul trucks, loaders, service vehicles, or public traffic?
- Where do they cross lanes, guide equipment, work near reversing vehicles, or enter blind areas?
- What background, light, weather, shadows, and visual clutter will they face?
- Does the task divert attention, and which barriers, routes, or other controls already reduce the exposure?

This prevents a common buying error: treating all mobile-equipment areas as the same. A well-lit, controlled zone and a changing yard or low-light task may need different coverage, outer layers, and traffic controls.

Explore Reflective Vests after your site assessment is complete.

2 Match the material to daylight, low light, and darkness

High visibility works differently in daylight than it does after natural light drops. CCOHS explains that fluorescent material uses ultraviolet light from sunlight and improves daytime visibility, including low natural-light conditions such as cloud cover, fog, dawn, and dusk. It also explains that retroreflective material returns light toward its source and is most effective in low-light conditions when the wearer is within a vehicle or equipment light beam (CCOHS: fluorescent and retroreflective materials).1

In clear daytime work, background colour and contrast deserve attention. At dawn, dusk, or in poor weather, the garment must stand out against a changing background. In dark areas, retroreflective performance becomes especially important because bright colour alone does not create the same visibility without natural light. Review the shift schedule, seasonal daylight, fixed and vehicle lighting, shadows, and the worker's orientation to equipment. CCOHS also notes that contrast and visual clues from body motion can improve recognition (CCOHS: high-visibility apparel selection).1

3 Choose coverage and design for how workers are seen

A garment must be visible from the directions in which equipment operators and drivers will encounter the worker. As a practical buying rule, favour **clear, uninterrupted visibility around the body** when work involves changing orientations, traffic approaches, or movement through active equipment areas. Stripes on arms and legs can provide visual cues about movement and direction; CCOHS identifies all-around coverage and contrasting striping as useful selection considerations.1

Check the garment while the wearer reaches, bends, climbs, operates controls, wears normal PPE, and carries tools. It should remain fastened and present a large, unbroken visible surface. Ontario gives the same advice for apparel worn near mobile equipment (Ontario: personal protective equipment guidance).2

Review branding, radio straps, tool belts, backpacks, glove gauntlets, and harness hardware. They can cover visible areas. If the site adds logos or identification, have a qualified reviewer check the finished garment against applicable requirements.

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4 Build the layer system around the work, not around a vest

Winter layers, rainwear, insulated outerwear, coveralls, harnesses, and task-specific clothing can change fit and visibility. The outermost layer an operator sees should retain the needed high-visibility features. A worker should not have to choose between warmth, weather protection, and being noticed.

Fit is a safety and procurement issue. Apparel should sit correctly, stay in place, and allow layers to be added or removed without covering high-visibility material (Ontario: fit and environmental considerations).3

Before standardizing a garment, trial representative sizes with actual base layers and PPE. Check mobility, fastening, heat load, snag points, and access to pockets, radios, and harness connections. For flame, electrical-flash, chemical, thermal, or other hazards, coordinate with the responsible PPE program. High visibility does not replace other required protection.

5 Treat high-visibility apparel as one control in the traffic plan

A worker who is easier to see can still be in a blind spot or an unprotected travel path. Apparel should support, not replace, separation and traffic management. Ontario identifies limited visibility, inadequate separation, inadequate traffic controls, and inattention as contributors to mobile-equipment incidents; it recommends barriers, pedestrian routes, lighting, detection aids, warnings, and traffic planning.2

Include operations and traffic-control personnel in the purchase decision. Confirm approach paths, reversing activity, worker entry points, glare, and communication protocols. If work shifts from day to night or into an active yard, update both the apparel and traffic plan.

Requirements vary by jurisdiction and activity. WorkSafeBC, for example, frames selection around the vehicle hazard, speed, worker duties, and location relative to equipment (WorkSafeBC OHS Guideline G8.24).4 Verify the requirements for the specific work.

6 Use a buying checklist that survives field use

A purchase specification should identify the work setting, light and weather, coverage, compatible layers and PPE, sizing range, and care constraints. Ask the supplier for product documentation and evidence relevant to the site's stated requirements; CCOHS recommends proof that a garment's materials and design meet the applicable requirements.1

Before approving a model, confirm these points:

1. **Site match:** The assessment identifies equipment exposure, light, background, and task—not only the job title.
2. **Finished garment:** The label, model, trim, colour, and additions match what the site reviewed; substitutions require a new review.
3. **Fit trial:** Users can work and wear normal equipment without obscuring visible areas.
4. **Care and issue:** The care label, replacement triggers, condition checks, and removal-from-service process are known before bulk purchase.

7 Inspect, clean, and replace workwear before visibility is lost

High-visibility workwear is exposed to dirt, oils, abrasion, weather, and repeated laundering. Those conditions affect its usefulness. CCOHS states that contaminated or dirty retroreflective material provides lower visibility and that apparel showing wear, soiling, or contamination should be replaced (CCOHS: care and maintenance).1

Make condition checks part of issue and supervision. Look for heavy soiling, fading, damaged trim, tears, failed closures, or anything that leaves the garment open or hidden. Follow the specific care label, not a generic laundering rule. Ontario mining guidance also calls for replacement when apparel is heavily worn, torn, soiled, or contaminated (Ontario: care and maintenance).3

8 Limitations and SME-review note

This draft is a practical purchasing guide for Canadian industrial buyers. It is **not legal advice**, a substitute for a site-specific risk assessment, or a reproduction of CSA or provincial requirements. Before publication or use in a specification, have a qualified safety or PPE SME review the jurisdiction, task hazards, procedure, product documentation, customizations, and layered system. Manufacturer instructions and site requirements take priority.

9 Plan your PPE-workwear refresh

Total Group Safety & Equipment can help your team discuss the site conditions, layer system, and product documentation needed for a practical high-visibility workwear refresh. Contact us to review your application and PPE-workwear requirements.

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