Off-Road Vehicle Safety & Compliance Game Plan



More than 100 Canadians die in all-terrain vehicle (ATV) accidents each year. Some of these fatalities occur in workplaces. As a result, most provinces have incorporated specific workplace safety requirements for ATVs into their OHS regulations. Here's a briefing on current OHS rules along with a 7-step Game Plan you can implement to ensure compliance with them.

Defining Our Terms

ATVs are motorized, open vehicles with 3 or 4 oversized, deep tread and low-pressure tires that can move at rapid speeds and toe cargo. ATVs are one class of light vehicles designed for riding on unpaved trails, paths and other off-road settings. Other so called "off-road vehicles" (ORVs) that can be used for work-related purposes include:

- Utility terrain vehicles (UTVs), or ATVs that provide for side-by-side seating by one or more passengers, sometimes referred to as "argos," "razors" or "rhinos";
- Snowmobiles and tracked snow vehicles;
- Mini-bikes, dirt bikes, and other off-road motorcycles;
- Miniature vehicles like dune or sport buggies; and
- Amphibious vehicles.

ORVs are used not only recreationally but for workplace

purposes, including:

- By security and law enforcement professionals;
- At construction worksites;
- For landscaping, agricultural, mining, and military operations;
- To provide emergency medical, search, rescue, and firefighting services; and
- For logging, forestry, land surveying, and land management; and
- To carry out oil pipeline maintenance.

As with other forms of industrial machinery and equipment, ORVs pose significant workplace safety risks. Common causes of workplace ORV incidents include speeding and reckless and drunk driving, riding with too many passengers and collisions with moving or stationery objects. Thus, while subject to provincial traffic safety regulations, workplace use of ORVs has also become a matter of OHS compliance. Most provinces and territories have adopted OHS regulations to ensure safe use of ORVs in the workplace (the sole exceptions are Ontario, Newfoundland, Nova Scotia, Prince Edward Island, and the Federal jurisdiction). While specific requirements vary, there are 7 basic things you must do to comply with OHS ORV regulations.

Step 1. Don't Use Prohibited ORVs

Some provinces and territories ban the use of particular kinds of ORVs. Thus, 3-wheeled ATVs may not be used in a workplace in Alberta, B.C., or Yukon. Québec also specifies that ATVs must be mounted on at least 4 wheels to be deemed safe for work.

Step 2. Ensure ORVs Meet Applicable

Safety Standards

In B.C., ATVs used at a workplace must meet ANSI Standard SVIA-2017, American National Standard for Four Wheel All-Terrain Vehicles, or an earlier version of the standard if the equipment was manufactured before 2017, and UTVs must meet ANSI/OPEI B71.9-2016, Multipurpose Off-Highway Utility Vehicles or the earlier version of the standard for equipment manufactured before 2016. As a general rule, ORVs should be equipped with:

- Adequate brakes;
- A manually operated horn;
- Working head and taillights if the vehicle is driven after dark or in dim lighting;
- A rear-view mirror or other means of ensuring the vehicle can be backed up safely; and
- A suitable fire extinguisher if there's a risk of fire.

Heavy ORVs weighing one tonne or more should have additional safety devices which may include:

- Seat belts that are securely attached to the vehicle;
- An audible back-up alarm that sounds automatically when the vehicle is driven in reverse gear;
- A <u>rollover protection structure</u> (ROPS) or similar structure or system to protect the driver in case the vehicle tips or rolls over.

In addition, employers should ensure that any modifications that may affect an ORV's structural integrity or stability are certified by a professional engineer before the vehicle is used.

Step 3. Ensure Safe Operation of

ORVs

Employers must ensure that any ORVs used at the workplace are operated by a competent and suitably trained worker in accordance with the manufacturer's instructions. Three jurisdictions (Alberta, B.C., Yukon) require that the operator's manual be kept in a secure place with the vehicle or at another location readily accessible to the operator.

Step 4. Implement Safe Work Procedures for Using ATVs & Snow Vehicles to Move Loads

If an ATV or tracked snow vehicle is used to move a load, the operator must ensure that the load meets the weight, height and other restrictions specified by the vehicle's manufacturer. If the manufacturer doesn't set limits for operating the ATV or snow vehicle on sloping ground, 5% is the maximum allowable slope unless the employer develops and implements written safe work procedures for operating the vehicle on a steeper slope.

Step 5. Implement Safe Work Procedures for Loading & Unloading ATVs & Snow Vehicles

There must also be work procedures and protocols for safely loading and unloading an ATV or snow vehicle onto or off of a carrier. Among other things, those procedures should require that ramps used to load or unload an ATV or snow vehicle to be placed at a suitable angle, and that they be wide and strong enough and have a surface finish that provides an adequate grip for the ATV's tires or the snow vehicle's track.

Step 6. Ensure ORV Operators & Passengers Use Required PPE

While appropriate <u>head protection</u> for ORV operators and passengers is a must everywhere, some jurisdictions specify standards that such equipment must meet:

Jurisdiction	Standard Head Protection Must Meet
FED	No standard specified.
АВ	Head protection for workers riding in ATV, snow vehicle, motorized trail bike, or motorcycle or, small utility vehicle at a work site must meet: • U.S.A. Federal Motor Vehicle Safety Standard FMVSS 218, Motorcycle Helmets 1993 OCT; or • BSI Standard BS 6658: 05, Specification for Protective Helmets for Vehicle Users; or • Snell Memorial Foundation Standard M2005, 2005 Helmet Standard for Use in Motorcycling

Jurisdiction	Standard Head Protection Must Meet
Jurisdiction BC	Operators and passengers on ATVs, snowmobiles and motorcycles must wear headgear meeting: • CSA Standard CAN3-D230-M85, Protective Headgear in Motor Vehicle Applications; or • BSI Standard BS5361.1976, Specification: Protective Helmets for Vehicle Users, (as amended to 1981); or • Snell Memorial Foundation 1995 Standard for Protective Headgear for Use with Motorcycles and Other Motorized Vehicles; or • U.S. Federal Standard for Motorcycle Helmets (Title 49 — Transportation — Part 571.218). • Headgear may meet one of following standards instead where an ATV is operated within a specific location, with no rollover hazard area and no area containing a significant hazard that
	<pre>may cause loss of control and at a speed not exceeding 20 km/h (13 mph): • CSA CAN/CSA-D113.2-M89, Cycling Helmets; or • Snell Memorial Foundation 1994 Standard for Protective Headgear for Use in Non-Motorized Sports; or • Snell Memorial Foundation 1995 Standard for Protective Headgear for Bicycling.</pre>
MB	No standard specified.
NB	No standard specified.
NL	No standard specified.
NS	No standard specified.
ON	No standard specified.
PEI	No standard specified.
QC	No standard specified.
SK	No standard specified.
NT	No standard specified.

Jurisdiction	Standard Head Protection Must Meet
NU	No standard specified.
YK	Operators and passengers of ATVs, snow vehicles, motorcycles or similar vehicles must wear protective headwear that meets: • CSA D230-M85, Protective Headgear in Motor Vehicle Applications; or • U.S. Federal Standard for Motorcycle Helmets (Title-49-Transportation-Part 571.218); or • Other similar standards acceptable to the board.

Source: Bongarde Media

Exception: Personal head protection may not be required where the vehicle is fitted with ROPS and seat belts and operated at low speeds. Other PPE and protective clothing required for operators and passengers of ORVs may include, depending on the hazards involved:

- Eye and face protection;
- Hearing protection;
- Clothing suitable for the environmental conditions;
- Hand protection including suitable gloves that allow for a firm grip on the vehicle's steering wheel, handles, and controls.

Step 7. Ensure ORV Operators Receive Proper Training

Operator inexperience and carelessness are leading causes of ORV incidents and injuries. So, it's essential to ensure that workers you require or allow to use ORVs at your workplace are not only properly licensed, registered, and certified to operate those vehicles under your province's motor vehicle laws, but also receive training from a qualified trainer in the safe use, handling and operation of the vehicle. For an

ATV or snow vehicle operator, such training should include, at a minimum:

- How to perform a pre-trip inspection of the vehicle;
- The proper use of the required PPE and protective clothing;
- Operating skills according to the ATV or snow vehicle manufacturer's instructions;
- Basic mechanical requirements; and
- Loading and unloading the vehicle, if this is a job requirement.

Ensure that operators understand their training and can demonstrate the necessary knowledge and competence to perform the safety measures the lesson covered. And keep <u>proper documentation of the training you provided</u> and the efforts you made to verify its effectiveness.