

Workers' Guide to Hand Signals for Directing Vehicles

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The Safety Association for Canada's Upstream Oil and Gas Industry

By industry, for industry



Leading Energy, Services, Safety, Manufacturing and Innovation

ENDORSEMENT

This document was developed by industry for industry. Enform gratefully acknowledges the support of the endorsing organizations in the development of this document.

- CAGC Canadian Association of Geophysical Contractors
- CAODC Canadian Association of Oilwell Drilling Contractors
- CAPP Canadian Association of Petroleum Producers
- CEPA Canadian Energy Pipeline Association
- EPAC Explorers and Producers Association of Canada
- PSAC Petroleum Services Association of Canada

ABOUT ENFORM

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Preface

Purpose

This document has been developed to improve the safety of personnel and equipment when vehicles need to be moved with the help of a guide. It provides guidance for promoting improved communication between the driver and the guide through a standard set of directional signals and rules of conduct.

Scope and Limitations

The hand signals described in the document are designed to provide visual guidance to the operator of the vehicle. The signals relate to *driving* and *stopping* the vehicle, and apply to both backward and forward movement.

The signals apply to the movement of vehicles only. The operation of truck-mounted equipment, such as cranes and winches, is beyond the scope of the document.

The signals included are not meant to be all-encompassing but rather to provide a set of basic signals for the driver and guide. Other signals may be needed in particularly difficult areas, and these must be discussed and agreed upon in advance by the driver and the guide.

These hand signals are consistent with regulations in the provinces of British Columbia, Alberta, Saskatchewan and Manitoba.

Background

Industry Recommended Practice 12 (IRP 12) was developed in 2000, at the request of the Canadian Association of Geophysical Contractors. It was created by an industry working committee consisting of the Alberta Trucking Industry Safety Association, the Canadian Association of Geophysical Contractors, the Canadian Association of Oilwell Drilling Contractors, and the Petroleum Services Association of Canada, with the support of the Canadian Petroleum Safety Council.

The committee's mandate was to develop a standard set of visual signals for use when vehicles must be positioned and a guide provides directions to the driver. Our thanks to the individuals, companies, and associations that gave freely of their time and energy to provide the invaluable support necessary for the completion of the project.

The *IRP 12* document was scheduled for review in 2011. As a result of this review, the Enform Advisory Committee withdrew *IRP 12* and replaced it with the *Workers' Guide to Hand Signals for Directing Vehicles*. It is recommended that this document be eligible for review in 2015.

1 General Duty to Prevent Harm

Moving vehicles are a potential source of serious harm to people.

Incidents associated with moving vehicles and equipment can cause costly damage.

All workers are required by law to identify potential hazards in their work environment, and to minimize the potential for harm by using controls that will reduce risk.

This document outlines guiding principles and a set of hand signals. Employers may choose to use the signals as part of an overall hazard identification, risk assessment, and hazard control plan, within the safety management system.

Hazard identification, risk assessment, and risk control are dynamic processes. The level of risk to which workers are exposed is constantly changing.

For example:

- New drivers and workers have different levels of knowledge or experience.
- Personnel from different companies may use different work procedures.
- Toward the end of a workday, attention and awareness levels may wane.
- As work sites change, so may congestion points or traffic management plans.
- Some people may be unaware of the risk of serious injury from being struck by a vehicle.
- An unforeseen or unplanned event may occur.
- Vehicles may develop faults.

These hand signals have been developed by industry, for industry, so that employers can implement them into their hazard management systems and safe operating procedures with confidence.

Co-operation and clear, consistent communication between drivers and guides can minimize the potential for harm or damage.

2 Key Principles and Responsibilities

The driver is ultimately responsible for the safe operation and movement of the vehicle.

- Whenever possible, the vehicle shall be positioned so as to minimize movement in reverse.
- Extreme caution shall be exercised when moving a vehicle. Whenever possible, a guide should assist the driver.

- The driver takes direction and guidance from the guide.
- The guide must always be fully visible to the driver. If the guide is not fully visible, the driver must stop.
- Guides shall wear high-visibility clothing (e.g., reflective striping). See CAN/CSA Z96-02 High Visibility Safety Apparel Standard.
- Drivers shall not permit anyone to ride on the running boards, fenders, or any other part of the vehicle except on the seats provided.
- No one should cross or step behind a vehicle when the backup warning device is activated.

3 On-The-Job Hazard Identification, Risk Assessment, and Control

Before moving a vehicle:

- Plan a path that minimizes the need to drive in reverse.
- Conduct a visual inspection of the desired path.
- Identify potential hazards in the vehicles path, such as overhead lines, ruts, wellhead, or personnel.
- Once you identify the hazards, assess the risk of harm and implement control measures.

4 General Guidelines

When backing up, drivers should do the following:

- Use a guide whenever possible.
- Stop backing up immediately under any of these conditions:
 - The guide is not fully visible.
 - Visual contact with other workers is lost.
 - An emergency stop signal is received from anyone in the area.
- Resume backing up only after visual contact with the guide or workers on foot is restored and acknowledged.
- Sound the horn before starting to move the vehicle.
- Stop all vehicle movement while the guide is repositioning.

Guides should do the following:

- Remain visible to the driver at all times.
- Wear high-visibility clothing. See CAN/CSA Z96-02 High Visibility Safety Apparel Standard.
- Establish and maintain eye contact with the driver.
- Position yourself to maintain as clear a view as possible of the intended path of the vehicle.
- Stay clear of the vehicles path.
- Never stand behind a reversing vehicle.
- Avoid walking backward.
- Use standard hand signals to communicate with the driver.
- Be sure that no one is riding on the outside of the vehicle before signalling to the driver to begin moving.
- Immediately signal to the driver to stop if any person or object enters the vehicles intended path.
- Signal to the driver to stop if you must change position. Reposition, and when ready, signal to the driver to continue.
- Use distinct and deliberate body movements.
- Be aware of blind spots.
- Protect yourself, and be aware of crush points.

Other workers should do the following:

- Remember that large vehicles have significant blind spots.
- Remain clear of the vehicle unless acting as a guide.
- Make eye contact with the driver to ensure he or she knows that you are there.
- Never cross or step behind the vehicle when it is backing up or when its backup signals are on.

5 Signals

When it's necessary to move a vehicle, everyone must understand exactly what is going to be done. This will help preserve the safety of everyone involved in the operation. There should be no confusion about the hand signals to be used.

Make sure that all workers involved understand who is directing the move and the procedures to be followed. Review all the hazards associated with the particular move and the control measures being used to minimize or eliminate the risk of potential harm.

Designate one guide so there is no confusion in the signalling procedures. The following illustrate the seven basic signals to assist in vehicle repositioning:

PROCEED SLOWLY



FORWARD

Always face palms in direction of desired travel.



BACKWARD

Then bend both arms repeatedly toward head and chest, and then extend.

URNS



Point one arm to indicate the direction to turn



Bend monitoring arm repeatedly toward head to indicate continued turning.

DISTANCE TO

STOPPING POINT



**FACE PALMS FORWARD WITH HANDS ABOVE HEAD. B
RING ELBOWS FORWARD AND HANDS TOGETHER.**

STOP

CROSS BOTH ARMS ABOVE HEAD



EMERGENCY STOP

START WITH HANDS CLASPED OVER HEAD



EXTEND DOWNWARD REPEATEDLY UNTIL VEHICLE STOPS

CLEAR TO LEAVE AREA



POINT AT THE DRIVER AND GAIN EYE CONTACT



TURN AND EXTEND ARMS IN DESIRED DIRECTION

Other Safety Considerations

Keep in mind the following general considerations:

- Fit reversing beepers, reversing cameras, and other backup warning devices where it makes sense to do so.
- Use a guide even if backup warning devices are in place.
- Minimize foot traffic. Cordon off an area if necessary.
- If you must have workers and vehicles working in the same area, consider establishing a traffic control system.
- External workers coming onto a work site increase the risk of incident. Never assume that new personnel know how to be safe around moving vehicles.
- Consider the increased risk associated with an unplanned or unforeseen event.

If no guide is available, the driver should do the following:

- Check the intended path of the vehicle.
- If necessary, get out of the vehicle and visually inspect the site.
- Back up immediately. Do not trust the scene to remain as it was when you checked.
- Sound your horn before starting to move.
- Back up slowly.
- Place a marker a safe distance behind your vehicle, and then back up to it.
- As you back up, check all of your mirrors, including both side mirrors.
- Avoid backing up to your blind side. The blind side is the passenger door side.
- Don't back up further than necessary.
- If in doubt, stop and get out. Check the intended path carefully.

6 Definitions and Terminology

Guide (includes spotter): An individual assigned to provide visual signals to the driver moving a vehicle. It is advisable for the guide to be a co-worker of the driver.

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