



LIVING GOAL ZERO
REFERENCE GUIDE
TO OUR LIFESAVING
BEHAVIOURS AND ICONS



INTRODUCTION

At Colas, safety is at the core of who we are and is at the heart of everything we do. While we continue to make significant headway in the field of safety each year, there is always room for improvement.

This is why the Goal Zero Lifesaving Behaviours and Icons were created. They give everyone at all Colas Canada companies, regardless of position, role or geographical location, a common safety framework and help ensure we all have a safe working environment.

Goal Zero Lifesaving Behaviours and Icons support our safety management systems and are based on our policies and procedures. They are a standardized set of guiding principles that are aligned across the various Colas Canada companies. The Lifesaving Behaviours improve safe work practices and with your participation, helps us prevent serious injuries and fatalities.

This booklet presents the 8 main, and 5 supplemental Colas Goal Zero Lifesaving Behaviours, describes them, presents their Icons and identifies simple actions you can take to protect yourself and others. Each Lifesaving Behaviour and Icon represents an activity that is most likely to result in serious injury or fatality. This guide also provides you with detailed guidance on why each Behaviour is important, and what you must focus on to ensure everyone is always safe.

Use this handbook to help you remember each of the Goal Zero Lifesaving Behaviours, their Icons and the simple actions you can take to protect yourself and others. Refer to it often to help us live Goal Zero.

We must all adopt a Goal Zero attitude and integrate all the Lifesaving Behaviours from this booklet and that were presented during the safety orientations into our day to day activities and call out and stop any unsafe actions when we witness them. By working together, we can create a safe working environment and reach Goal Zero!



By adopting all Lifesaving Behaviours, you help us eliminate the risk of serious injury and help us prevent work-related fatalities and reach Goal Zero

COLAS LIFESAVING BEHAVIOURS AND ICONS

Table 1 contains the 8 Core Lifesaving Behaviours and Icons.

Table 2 contains the 5 Supplementary Lifesaving Behaviours and Icons which can be implemented based on risks associated with work, activities and operations.

TABLE 1

CORE LIFESAVING ICON	ICON GUIDANCE	EMPLOYEES	SUPERVISORS
 <p>HAZARD CONTROL</p>	<p>Identify, evaluate and control hazards before starting work. A suitable plan must be in place that controls potential hazards in the workplace and the required controls must be communicated to each member of the workforce. Potential hazards and controls must be reviewed each day or for each new task to identify new or unforeseen hazards and amended controls must be agreed and authorized.</p>	<ul style="list-style-type: none"> Be aware of potential hazards in the workplace. Ensure the planned controls are in place. Review hazards each day or for each new task and confirm the planned controls remain adequate. Stop and reassess if anything has changed. 	<ul style="list-style-type: none"> Communicate potential hazards and the required controls to each member of the team. Visit the workplace and check to make sure the required controls are in place. Authorize any amended controls where new hazards have been identified or if anything has changed.
 <p>FALL PREVENTION</p>	<p>Protect yourself from falls. Avoid working at height or use collective protection measures such as barriers or guardrails where possible. Work within a protective environment such as scaffold, man-lift or elevated platform or use fall protection equipment when working at heights. Always use three points of contact when accessing equipment, vehicles, and ladders. Fall hazards include elevated work, getting into or out of vehicles, working near exposed edges or around voids or fragile surfaces.</p>	<ul style="list-style-type: none"> Always work behind protective barriers where possible. Do not remove or work outside of any protective barriers without authorization. Be trained on the proper use of personal fall protection equipment. Inspect fall protection equipment before use. Always utilize 100 % fall protection when outside of a protective environment. Have a rescue plan when using personal fall protection equipment. Utilize three-points of contact when ascending/descending equipment, vehicles, and ladders. 	<ul style="list-style-type: none"> Plan work to avoid work at height when and where possible. Provide barriers or other protective environments where possible. Provide confirmation it is safe for employees to work at heights. Ensure and verify that employees have received proper training on fall protection and three-points of contact.
 <p>ROAD SAFETY</p>	<p>Drive and operate equipment safely. This includes being qualified and authorized to drive a company vehicle on the highway, operating equipment on site, always wearing your seat belt, properly inspecting vehicles or equipment before use, obeying posted speed limits, and never driving or operating a vehicle or equipment while distracted. Road safety hazards include driving on the highway, on a work site and includes on-road and off-road vehicles.</p>	<ul style="list-style-type: none"> Hold a valid license, permit or certificate and be competent to drive the classification of vehicle you are driving. Inspect the vehicle or equipment before operating. Do not send or read a text message while driving. Never use cellphones or other mobile electronic devices while driving. Always wear a seatbelt anytime the vehicle is in motion. Drivers must ensure any and all passengers are wearing their seat belts before moving. Obey speed limits while driving. Never drive while tired or fatigued. Pull over in a safe area to rest, or have someone else drive. Drive defensively and based on the road conditions. Drivers must ensure the area is clear before backing up and stop if they are unsure or lose sight of their spotter. Plan your journey to include rest stops and fuelling locations. Intervene when a driver is not following known safe practices and driving laws. Intervene with the driver if exceeding the speed limit. 	<ul style="list-style-type: none"> Only permit authorized employees to drive company vehicles. Ensure the employee holds the valid license, permit or certificate and be competent to drive the classification of vehicle they are operating. Monitor the performance of employee drivers of company vehicles.

 <p>ENERGY ISOLATION</p>	<p>Verify Zero Energy before work begins and use specified lock-out/tag-out equipment where required. Hazardous energy includes equipment power sources such as electricity or fuels but also includes stored energy in the system such as electric potential, mechanical or kinetic energy, pressure, toxic materials, gases, chemicals, hot liquids and gravity.</p>	<ul style="list-style-type: none"> Know the energy isolation procedures specific to your job. Confirm with the supervisor that the method of isolation and discharge of stored energy is agreed upon and executed. Lock and Tag equipment for maintenance as required and verify zero-energy. Make sure all energy isolation procedures are communicated and accounted for between shifts and at end of shift changes. 	<ul style="list-style-type: none"> Confirm that isolation and zero energy is in place. Confirm that no stored energy remains. Confirm that work is safe to begin.
 <p>COMPETENCY</p>	<p>You must be adequately trained, experienced and authorized to complete work tasks, or to operate equipment in the workplace.</p>	<ul style="list-style-type: none"> Have a valid qualification, certification or other authorization before you start the work task, or operate work equipment. 	<ul style="list-style-type: none"> Ensure only qualified, authorized or certified employees with competency perform each assigned work task or to operate equipment.
 <p>HEALTH HAZARDS</p>	<p>Protect yourself from health hazards. These include exposure to materials, substances or environments that may cause life-altering injuries or conditions. Potential Health Hazards in our business can come from many sources, through inhalation, ingestion, contact, and from the environment. They can cause skin sensitizing/irritating, heat-related illness, and allergic reactions.</p>	<ul style="list-style-type: none"> Follow all company policies and protect yourself against health-related hazards. Follow specific company plans regarding exposure to Silica and Lead. Wear PPE as required to protect yourself against exposures. Know the acceptable practices with fuel powered equipment that may pose a carbon monoxide exposure. Sufficiently hydrate, pay attention to the signs of heat-related illness, and take precautions. 	<ul style="list-style-type: none"> Ensure that safe work related policies are being followed for Health Hazard exposures. Know the signs and symptoms of heat-related illness and take precautionary measures if suspected. Verify employees are wearing proper PPE as required.
 <p>IMPAIRMENT</p>	<p>Never work or operate equipment while impaired. Using alcohol or illegal drugs, or misusing legal drugs or other substances, will reduce your ability to do your job safely. A tired or fatigued worker may also be considered impaired.</p>	<ul style="list-style-type: none"> Intervene if you see alcohol or drug abuse. Immediately report to the supervisor if you suspect that a fellow employee is impaired or under the influence. Do not use, sell, or distribute illegal drugs. Don't be impaired or under the influence of alcohol or drugs at work. Always report to your supervisor if you are taking medicine or prescription drugs that could have an impact on your performance. Exercise due caution when fatigued, and immediately report to the supervisor any indications of your own personal fatigue that may cause impairment. 	<ul style="list-style-type: none"> Immediately stop work if any employee appears to be under the influence of drugs or alcohol. Only assign employees fit for duty to work.
 <p>LINE OF FIRE</p>	<p>Stay out of danger zones. These include areas where there is a risk of being run over or backed over by a vehicle or mobile equipment, being struck by an object falling from height, ejected from a system or tool, or getting caught between an object and being crushed. Common activities where Line of Fire hazards are present include the moving/backing of vehicles and equipment, lifting or hoisting, tensioned lines, objects with potential to fall or roll, pressurized systems, electrical equipment, spring-loaded devices and projectiles.</p>	<ul style="list-style-type: none"> Identify and control the danger zone. Stay out of the danger zone and designate a safe zone when necessary. Always make eye contact with the driver/operator before entering a danger zone and make sure the equipment is parked, shutdown or otherwise locked out before approaching. Plan a basic escape route from the danger zone. 	<ul style="list-style-type: none"> Verify that employees know the danger zones. Plan vehicle and equipment movements, with emphasis on minimizing backing. Instruct employees as to line of fire hazards within their respective work operations. Monitor employees and ensure employees are staying out of the danger zones.

TABLE 2			
SUPPLEMENTARY ICONS			
 <p>EXCAVATION</p>	<p>Before starting trenching and excavation work, ensure that authorization has taken place and that competent persons are in charge and responsible for operations. Trenching and excavation may contain underground utility hazards, potential confined spaces, and have the potential for collapse of earthen walls and excavated materials.</p>	<ul style="list-style-type: none"> Confirm that the competent person is on-site and in charge of the work operation. Confirm with the supervisor-in-charge that work is safe to begin. Pay attention to any potential hazards and notify the supervisor of any changes within the trenching or excavation work operations that may pose a risk. 	<ul style="list-style-type: none"> Ensure that all hazards have been assessed, evaluated, and controlled prior to authorizing employees to work. Confirm that all underground utilities have been marked, located, and evaluated for hazardous potential. Continuously inspect benching, sloping and shoring systems for adequacy, and inspect after any water event (i.e. - rain). Confirm that employees have sufficient access and egress.
 <p>CONFINED SPACES</p>	<p>Follow the confined space entry procedures before entering a confined space. Confined spaces, such as silos, tankers, underground storage tanks, vaults, etc. may contain explosive gases, poisonous air, oxygen-deficient atmospheres, or other physical or environmental hazards. Spaces shall be permitted unless determined to not be required by the supervisor-in-charge. Authorized access will keep you safe.</p>	<p>Entrant Employees:</p> <ul style="list-style-type: none"> Have a valid qualification, certification and authorization to enter a confined space. Check and inspect all safety equipment such as personal gas monitors, harnesses and rescue equipment is in place and functional. Confirm with the Supervisor-in-charge that the space is safe to access. Confirm with the attendant that you can enter. Follow the permit safety procedures for all permitted entries. <p>Attendant Employees:</p> <ul style="list-style-type: none"> Approve and control access to permit spaces. Have a verifiable means of communication for all permitted entries. 	<ul style="list-style-type: none"> Verify the requirements in the permit have been met for permitted spaces. Confirm the attendant is qualified and present. Ensure the space has been adequately vented beforehand. Always confirm that air monitoring has been completed (periodic and continuous). Confirm that it is safe to start work. Issue and sign off confined space entry permits as required.
 <p>SAFE LIFTING</p>	<p>Lifting activities must be planned, supervised and carried out by competent people. Lifting equipment and accessories must be certified and used in the manner for which they were designed. Hazards include failure or collapse of lifting equipment, loss of the load, which can fall on people nearby, or being trapped and crushed by parts of the lifting equipment or load.</p>	<ul style="list-style-type: none"> Always have a lift plan. Make sure all parts, including attachments, can accommodate the load. Ensure lifting operations are supervised at all times. Ensure personnel involved are adequately trained and competent. Establish and control access to any exclusion zone. Verify lifting equipment holds current lifting certification and inspect equipment prior to use. 	<ul style="list-style-type: none"> Ensure lifting activities are adequately planned. Check that ground bearing capacities are adequate where necessary. Ensure competent people are appointed and authorized to supervise and carry out lifting activities. Ensure lifting equipment holds current certification and can accommodate the required loads. Monitor lifting activities to ensure that plans are being implemented and followed.

OVERHEAD POWERLINES



Work activities must be planned to ensure equipment, objects or personnel do not enter the Minimum Approach Distance around any energized overhead line. Hazards include electrocution or fire whenever the electricity finds a path to ground, touch potential of any object in contact with the line, or step potential where electricity is discharged in the ground. Electricity can jump a significant distance so direct contact with the line does not have to be made. In addition, lines can remain energized even when the power is turned off, so always treat any line as energized.

- Always assume lines are energized.
- Verify through the supervisor the voltage of overhead powerlines so that proper clearance distances can be determined.
- Maintain proper clearance distances when operating equipment or vehicles around powerlines.
- Never operate equipment without a spotter when one is determined to be necessary by the supervisor-in-charge.
- If you are operating equipment that makes contact with the line, stay in the vehicle and do not touch or step onto anything outside the vehicle.
- If you must leave the vehicle because of an emergency such as fire, keep your feet together and your hands by your sides and jump a short distance clear of the vehicle. The goal is to ensure your entire body lands clear of the vehicle without stumbling, then shuffle away with your feet together 2 or 3 inches at a time until you reach a safe distance.
- Verify line voltages through power companies when working with cranes in proximity to overhead powerlines.
- Instruct employees on the proper clearance distances and ensure employees are maintaining proper distances.
- Assign a spotter when determined necessary.
- Ensure your team is aware of touch potential and step potential hazards and what to do in an emergency.

WORKING OVER WATER



Personal flotation devices should always be worn when there is a danger of falling into water. When working near, or on water, wearing a personal flotation device (e.g. life jackets or buoyancy aids) protects you from drowning.

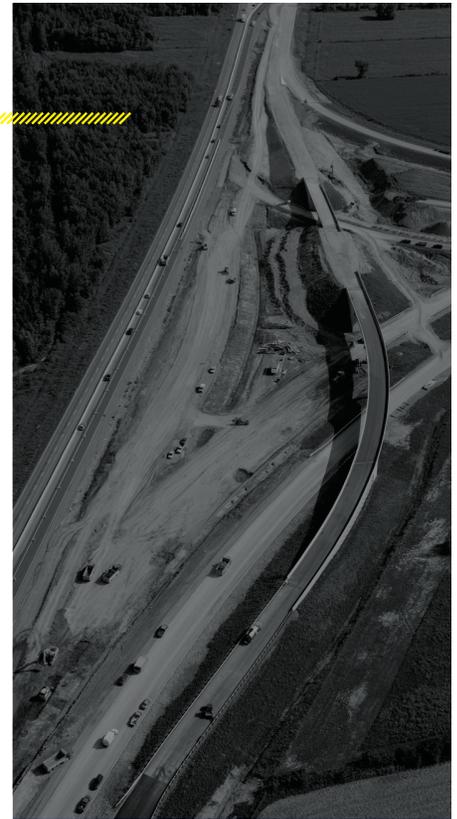
- Know when it is required to wear a personal flotation device.
- Always wear a personal flotation device when required.
- Wear the personal flotation device properly and as intended (e.g. correct size, tied where required, etc.).
- Check whether the personal flotation device is working properly and not damaged before use.
- Confirm and ensure your team knows when and where a personal flotation device must be used.
- Ensure that personal flotation devices are regularly inspected.

LIVING THE LIFESAVING BEHAVIOURS EACH DAY

Everyone at all Colas companies must adopt and implement, at a minimum, the eight Core Lifesaving Behaviours that correspond directly to the majority of serious injuries and fatalities observed within our operations. Supplementary Behaviours and Icons should be considered based on operational risks, and integrated into each Colas company's safety framework.

SAFETY AND YOU

- Never start a task without a pre-job risk assessment and a safety discussion. These could be part of a daily huddle, tool-box talk, or similar, where the risk is discussed.
- Everyone must be trained, experienced, assessed and authorized to carry out the work or task to be performed.
- Personal Protective Equipment (PPE) must be provided and worn in accordance with the requirements identified by the risk assessment and work-specific policies and procedures.
- An Emergency Response Plan must be developed and in place, before the commencement of work.
- Every employee is authorized to "STOP WORK" if they are in doubt about the safety of an activity.
- All Colas companies and supervisors must discuss and encourage employee safety interventions based on the Goal Zero Lifesaving Behaviours.



Integrating the Lifesaving Behaviours into everything you do helps us reach Goal Zero

IMPORTANT INFORMATION FOR LEADERS



- Leaders in our organization are active participants in the monitoring and improvement of our safety culture.
- Lead by example, "Walk the Walk" and provide the necessary resources to support the Living Goal Zero Program, the Lifesaving Behaviours and its continued adoption.

EMPLOYEES NEED TO KNOW



- The Lifesaving Behaviours, the meaning of each of the Icons and how each describe existing requirements and actions to prevent a serious injury or a fatality.
- That all Colas companies are serious about preventing serious injuries and fatalities.
- Everyone has the right and authority to Stop Work with regard to Safety.

ROLES AND RESPONSIBILITIES

RULE AREA	EMPLOYEES	SUPERVISORS	MANAGERS
COMMUNICATION 	Be aware of the Lifesaving Behaviours and Icons and that apply where they work.	Discuss the Lifesaving Behaviours and Icons and that apply to your team.	Ensure all teams understand the Lifesaving Behaviours and Icons, how they apply to the workplace and the consequences if not followed.
APPLICATION 	Commit to follow the Lifesaving Behaviours and Icons.	Help everyone on your team recognize and manage hazards and how to apply the Lifesaving Behaviours every day everywhere they work.	Recognize and encourage good safety behaviours and habits around Lifesaving Behaviours and Icons within all teams.
RESPONSIBILITY 	Speak up or report concerns if a Lifesaving Behaviour is not being followed or ask if in doubt.	Seek and listen to feedback from your team and encourage them to report concerns.	Make sure that communication is open and ideas are shared. Reinforce safety priorities over production.
ACCOUNTABILITY 	Be vigilant to the situations and environment around me at all times.	Live Goal Zero and always set an example for others.	Monitor adoption of Lifesaving Behaviours and Icons, and ensure they are being followed.



CONTINUAL PROCESS IMPROVEMENT

The initial roll-out of the Lifesaving Behaviours and Icons in 2019 was the first step and only the beginning of a sustainable, long-term safety culture at all Colas companies. Continued focus and improvement at all levels is the key to preventing serious injuries and fatalities over the long term.

We are committed to Goal Zero, the Lifesaving Behaviours and Icons and will conduct ongoing reviews of all our processes and activities. Desire to improve, with ongoing retraining and reminding all employees about the rewards and benefits of this program will help us live Goal Zero.



We have a commitment, to continuously improve our processes and activities to live Goal Zero

INTERFACE WITH EXISTING TOOLS AND PRACTICES

ORIENTATION

The Lifesaving Behaviours and Icons are integrated into Safety Orientations for all employees at all Colas companies.

AUDITS/INSPECTIONS

The Lifesaving Behaviours, Icons, and Safety Controls that apply to the location or operation and can be inspected or audited at any time.

HAZARD ANALYSIS

All hazard analysis and assessments conducted consider hazards related to the Lifesaving Behaviours and Icons, where they apply and will detail specific controls required.

INCIDENT INVESTIGATION

As part of every incident investigation, there should be an assessment of which Lifesaving Behaviour and Icon applies to each case and, does it have an impact in the root cause analysis of the cause. This will help us prevent a similar incident in the future.

DAILY BRIEFING/TOOL-BOX TALK

These forums can be used to talk about safety, discuss which of the Lifesaving Behaviours and Icons apply to the day's activities and ensure everyone is clear on all the control measures in place.

TRAINING MATERIALS

The Lifesaving Behaviour and Icon that apply to specific trades or disciplines are featured in packages and training relating to that subject.

