

BV HSSE REQUIREMENTS HANDBOOK FOR SUBCONTRACTORS AND NON-EXCLUSIVES

GROUP QHSSE

VERSION	DATE
VERSION 08	JUNE 11, 2021

PUBLIC INTERNAL RESTRICTED SECRET

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**BUREAU
VERITAS**

Shaping a World of Trust

Title:	BV HSSE Requirements Handbook for Subcontractors and Non-Exclusives	Revision:	2021.8
		Date done:	June 2021

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This handbook is intended as a guide to help you work within the limits of local legislation and Bureau Veritas and our clients' expectations. You are required to read this handbook and confirm your understanding and acceptance prior to providing services as an independent contractor /non-exclusive/subcontractor.

Bureau Veritas defines a "Non-Exclusive" person or "Independent Contractor" as a person (or entity) that engages into a contract to work with Bureau Veritas to perform specific services. When working for Bureau Veritas, the Non-Exclusive or Independent Contractor will perform all duties and activities as assigned per the contract or any subsequent work order. The Non-Exclusive or Independent Contractors are free to work on behalf of other organizations, unless a conflict of interest is identified. For the purposes of this handbook, the term Independent Contractor or Non-Exclusive will be used interchangeably.

A subcontractor is an external provider or an entity, which performs for Bureau Veritas part of the services that Bureau Veritas has contracted to perform with its client. When performing this part, the employee of this subcontractor acts on behalf of the company he belongs to; he appears to the client as an employee of that company; he is duly trained, qualified, authorized and directly controlled by that company; he/she follows the methodology of this company and issues deliverables of that company.

Once you have read and understood this handbook, Please sign the last page and return a copy to your Bureau Veritas contact person. You are not authorized to work for Bureau Veritas until this signed acknowledgment has been returned.

1 Introduction to Bureau Veritas

Bureau Veritas, founded in 1828, is an international service company whose core business is compliance assessment in the areas of quality, health, safety, environment and social responsibility. Shaping a world of trust, Bureau Veritas is a Global leader in testing, inspection & certification services.

Bureau Veritas has a global network of offices in over 140 countries, with more than 1400 offices and laboratories. Every day, our best assets, more than 75,000 staff members, including many experts, provide a variety of specialized services to over 400,000 clients and throughout the world with commitment dedication and expertise. Bureau Veritas has been recognized and accredited by the largest national and international bodies.



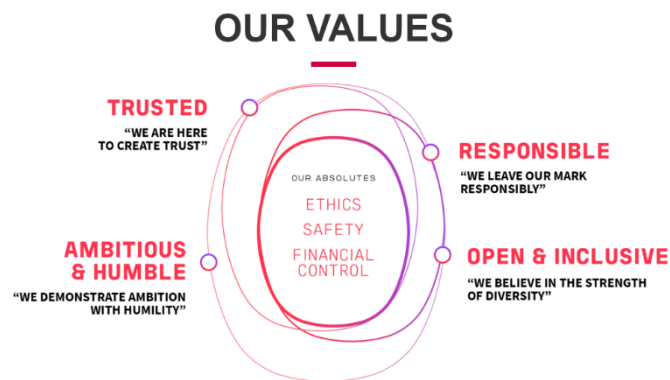
1.1 Our Mission and values

Our mission: Shaping a World of Trust by ensuring responsible progress.

Trust is the very foundation upon which relationships between citizens, public authorities, and companies are built. As a Business to Business to Society company, we believe that today more than ever, trust depends on evidence of responsible progress.

Population growth, resource scarcity, climate disruption and technological developments are some of the markers of a changing society. Bureau Veritas anticipates the risks associated with these challenges by developing ever more effective and innovative services. In this way, the Group strives to use its expertise to support sustainable growth and help build confidence between economic players. Corporate social responsibility is at the heart of Bureau Veritas' mission. It is also an engine of our financial performance, and forms part of our value creation and development strategy.

Our Values:



1.2 Bureau Veritas' 3 Absolutes

**BUREAU VERITAS
3 ABSOLUTES**

A NON-NEGOCIABLE PRIORITY
Every day around the world, Bureau Veritas employees are facing the growing challenge of delivering high level service to our clients

OUR FOUNDING VALUE
One of the most important assets of Bureau Veritas is its reputation as an independent and impartial service provider. For that reason, ethical conduct in the performance of our duties must be a daily preoccupation of each and every Bureau Veritas employee

OUR PERMANENT COMMITMENT
Financial controls are used by Bureau Veritas managers to track progress and evaluate financial results and are the most important tools for an objective measurement of company performance

ETHICS
SAFETY
FINANCIAL CONTROL

BUREAU VERITAS

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1.3 Group Organization

To deliver optimum service to clients in addressing their needs in quality, health & safety, environment and social responsibility, Bureau Veritas has defined eight global businesses.



2 Cardinal Safety Rules

The Cardinal Safety Rules are the life saving rules established for anyone working for Bureau Veritas, including Independent Contractors. Cardinal Safety Rules will be referred to regularly throughout this handbook and must be adhered to at all times in order to prevent serious injuries and fatalities.

CHAPTER 1
8 CARDINAL SAFETY RULES


WEAR THE REQUIRED PPE


WEAR FALL PROTECTION WHEN WORKING AT HEIGHT


DO NOT WALK UNDER SUSPENDED LOADS


DO NOT RUN WALK AND USE AVAILABLE HANDRAIL


APPLY LOCK OUT/TAG OUT METHOD BEFORE WORKING ON ENERGIZED EQUIPMENT


ENSURE ALL MACHINES ARE PROPERLY SAFELY GUARDED BEFORE OPERATING/SERVICING


WEAR YOUR SEAT BELT


FOLLOW SPEED LIMITS AND TRAFFIC RULES

CHAPTER 2
3 CONTROL MEASURES


USE INTRINSICALLY SAFE EQUIPMENT


RESPECT CONTROLLED AREAS


OBTAIN AUTHORIZATION BEFORE ENTERING A CONFINED SPACE

CHAPTER 3
5 SAFE BEHAVIORS


COMPLY WITH SAFE WORKING PROCEDURES AND PLANS


DO NOT BE DISTRACTED WHILE DRIVING


COMPLETE 2 MIN FOR MY SAFETY


DO NOT USE ALCOHOL OR ILLEGAL DRUGS WHILE WORKING OR DRIVING

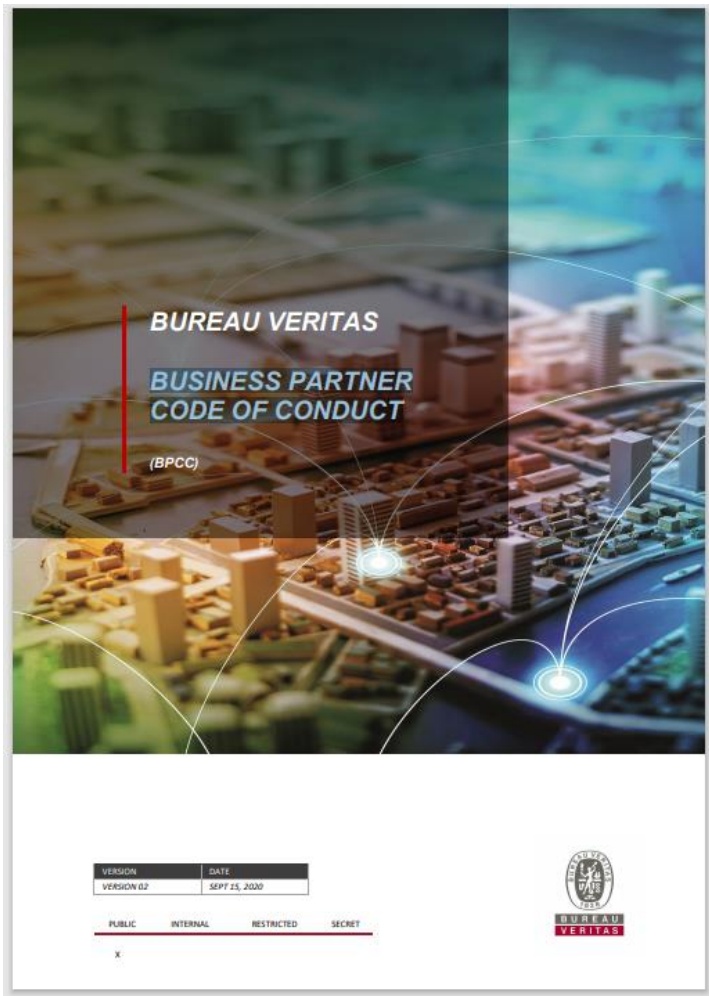

STOP WORK AUTHORITY
STOP WORKING IF THE SITUATION IS UNSAFE

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3 Code of Ethics

Bureau Veritas has built a global business based upon its long standing reputation. This reputation is one of the most valuable assets for the Group worldwide and is reflected in our core and business values. These values, shared by everyone and to which each of us subscribes, are the major unifying factors of Bureau Veritas. They reinforce our unity and cohesion and help promote our strategy of profitable growth.

"You have been provided a copy of the Bureau Veritas Business Partner Code of Conduct (BPCC) that embeds the principle of our Code of Ethics (CoE). You must sign off and acknowledge you have read, understand and will adhere going forward to the requirements laid down in our BPCC (including the principles of our CoE). You are not authorized to perform any services for Bureau Veritas until this signed acknowledgment has been returned."



BPCC can be found on our internet site at the following address (for the English version):
<https://group.bureauveritas.com/sites/g/files/zyfpx196/files/media/document/BPCC SEPT 2020 EN.pdf>

4 Statements for HSW (Health, Safety, Security and Well-being) and Environment

**‘OUR OBJECTIVE IS ZERO ACCIDENT’
HEALTH AND SAFETY IS OUR RESPONSIBILITY
EVERYONE MUST COMPLY AND BE ALERT
DEMONSTRATE SAFE BEHAVIOUR AND RESPECT TO ALL HSSE RULES**

Health, Safety, Security and Wellbeing Statement

Group QHSE

Version 1
February 2021
Public




Group Health, Safety, Security and Wellbeing Statement February 2021

Health, Safety, Security and Wellbeing Statement

Our Commitment

Bureau Veritas commitment is to become an undisputed leader in terms of Health, Safety, Security and Wellbeing worldwide. With 75,000 employees working in 140 different countries, our workforce is our most valuable asset and their Health, Safety, Security and Wellbeing are a priority to us.

Safety & Security

Safety is an Absolute. Irrespective the economic climate, the geography, the priorities or external pressure we may have, ensuring an incident free workplace for our customers and our workers is on the forefront of everything we do.

Health & Wellbeing

Bureau Veritas has a role to play in the overall wellbeing of its workers. The Health and Wellbeing of our workers is vital for the company's sustained success and benefits employees, business performance, customers, shareholders and society alike.

Bureau Veritas diverse workplace and its inclusive culture encourages differences and builds engagement, contributing to innovation and value creation to our customers and the wider society. Employee wellbeing is key to ensuring this diverse workforce can thrive.

Our Management System

Risks and opportunities are identified and managed ensuring the necessary safeguards are in place to protect our workers and the communities where we operate. All workers are empowered to address unsafe or hazardous situations and are engaged in finding the solutions to new or existing risks.

Our Drivers

- Provide a safe workplace and the necessary infrastructure to sustain continuous improvement and reach world class performance.
- Engage and consult workers in determining opportunities in our management systems, tools and programs.
- Increase employees HSW awareness and safe behavior.
- Mitigate hazards and reduce HSW risks.
- Continuously improve the HSW management system.
- Comply with all regulations, Group policies and clients requirements.
- Provide multiple channels for employee feedback and subsequent action-taking.
- Enable flexibility in the workplace for all employees wherever possible that covers when, where and how we work.




Didier Michaud-Daniel
Chief Executive Officer

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Environmental Statement

Group QHSE

Version 1
February 2021
Public

Group Environmental Statement February 2021

Environmental Statement

Our Commitment


Bureau Veritas a world leader in Testing, Inspection and Certification with presence in 140 countries and more than 75,000 employees believes that sustained development is essential for the future of our Planet. This means that the protection of the Environment is embedded in all activities and the services we provide to the society. In every decision we take, we have in mind that water is increasingly scarce, natural resources are becoming more strained, biodiversity is declining and climate change is accentuating the Planet's environmental challenges.

With this in mind Bureau Veritas is committed to:

- Full compliance with all legal environmental requirements within all our entities across the globe.
- Environmental education, training and awareness of our people coupled with effective communications rendering the specific topics part of the daily discussions and narratives on our organization;
- The recognition of extraordinary practices and efforts developed by our workers towards a greener future;
- Reduce our carbon emissions through the use of energy efficient vehicles, the reduction of energy consumption of our laboratories and facilities. In addition, whenever practical source the energy from low carbon or renewable sources. Our entities at a global level will also adhere to internal environmental policies ensuring an unrelenting path to carbon neutrality;
- Partner with stakeholders, scientists, customers and the general society to identify solutions for complex environmental challenges;
- The unyielding effort in continuing to improve our environmental performance and the prevention of any kind of pollution through the implementation of a certified ISO 14001 management system across our entities. With this, we will be assuring the necessary infrastructure at a local level to implement our commitment on the daily lives of our workers and operations;
- The systematic assessment of our performance and improvement opportunities, through the implementation of an external and internal audit program guaranteeing sustained progression in reducing our carbon foot print, our waste, the protection of biodiversity and the reduction of water use.

Our commitment in protecting the Planet and the future generations is constant and we will make sure it is fully integrated throughout all our operations.

At Bureau Veritas, our CSR strategy is deeply rooted in our mission and DNA. As a responsible company, we are committed to #ShapeABetterWorld, notably through our contribution to Shaping a Better Environment.



Didier Michaud-Daniel
Chief Executive Officer

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Statements can be found on our internet site at the following address (for the English version):
<https://group.bureauveritas.com/group/shaping-better-world/statements-policies>

4 Health, Safety, Security and Environment (HSSE)

Hazards and Risks

As a core value, Bureau Veritas takes maintaining your personal safety and those around you very seriously.

Whilst working, if you are exposed to any hazard, suffer any type of injury or witness unsafe behaviour, whether in an office, a vendor's factory, on a client site, while travelling on company business or while driving your car for business, you must immediately notify your local Bureau Veritas contact person.

This document details the principle hazards, recommendations and minimum requirements for their avoidance. It does not address all hazards. If you feel that there is a potential hazard that cannot be addressed, you must use your Stop Work Authority and ensure you and those around you are safe. You should then bring the hazard to the attention of a responsible person and advise your Bureau Veritas contact person.



**STOP WORKING
IF THE SITUATION
IS UNSAFE**

This document is intended to be your HSSE induction within Bureau Veritas as mentioned in the "Group QHSSE 111-PO Behavioural Safety".

Remember: At all times if you have any questions, you may seek guidance from your local Bureau Veritas contact person.

4.1 Driving

This information is designed to support defensive driving, increase driver responsibility, accountability and understanding of driving habits, road conditions and vehicle capabilities.

5.1.1) Data

Every year in the world, road hazards represent over 1.2 million deaths which make a daily average of 3500 people. Knowing full well that each death destroys a whole family, just imagine the large number of people affected by someone close being killed on the road. In addition to fatalities, this risk also results in nearly 50 million injuries per year.

Road hazards are the number one cause of fatalities in the professional sector. Driving has become part of work. Getting injured at work has never been accepted ... and here we're talking about an injury that could lead to death. Two out of three motorists will be involved in a vehicle accident in their lifetime therefore driving safety is a major priority for Bureau Veritas and its contractors.

5.1.2) Driving hazards

70% of drivers feel that they are "above average" drivers. Obviously, that's impossible. It is safe to assume that some of this 70% is the same driver speeds through a school zone, drives too close to a vehicle in front, or rapidly switches lanes when overtaking. Or maybe that was you? Nevertheless, every one of us has room for improvement.

Here below is the scenario of a car accident.

Timing	Impacts
In less than a second	It usually takes about seven-tenths of a second to react. This is how a car and driver going 90-100 km/h react when involved in a head on collision with a tree.
One-Tenth of a Second	The front bumper and grill work collapses. Steel, fiberglass and plastic penetrate the tree to a depth of 10 mm or more.

Timing	Impacts
Two-Tenths of a Second	The hood/bonnet crumples, comes unhinged and rises up, smashing the windshield/windscreen. Rear wheels come off the ground. The impact sends portions of the rear of the car flying forward. Heavy structural components are momentarily stalled, acting as a brake, but the driver moves forward at the original speed. The force of motion increases to 20 times the normal force of gravity. The driver's body slams forward, the legs impact and snap at the joints.
Three-Tenths of a Second	The driver's body rises from the seat, torso upright, broken lower limbs press against the dashboard. The plastic and steel frame of the steering wheel and column begin to bend and twist. The driver is positioned for a severe impact with the steering column and upper windshield area.
Four-Tenths of a Second	The first two feet of the car have been demolished, but the rear portion is still traveling at 90-100 km/h. The driver is still traveling at 90-100 km/h. The half ton motor block crunches into the tree. The rear of the car rises high off the ground.
Five-Tenths of a Second	The driver's hands bend with the steering column in an almost vertical position. The forces of motion and gravity impale the driver on the steering column. The trauma to the upper torso is devastating.
Six-Tenths of a Second	The driver's feet fly upwards. Brake and gas peddles are sheared and floor boards buckle upward. The car chassis bends in the middle and the driver's head continues forward, smashing into the windshield. The rear of the car slams back down with enough force to flatten the tires, bend the wheel rims and crack the rear axle in half
Seven-Tenths of a Second	The entire body of the car is forced out of shape. Hinges tear off and doors spring open. The rear seats ram forward, pinning the driver even further against the front dash and steering column. <i>The driver is now critically injured or dead!</i>

Although conditions contribute to traffic accidents, behavior is by far the leading causal factor. Studies have found 85% of accidents are caused by sources attributable to driver behavior, while only 15% are related to conditions.

5.1.3) Prevention measures

In order to be an "aware" driver, you must think and act defensively/preventively.

Behavior plays a large role in driving and operating a motor vehicle safely. Our behavior can vary in any number of ways, dependent on outside influences.

KNOW YOUR VEHICLE

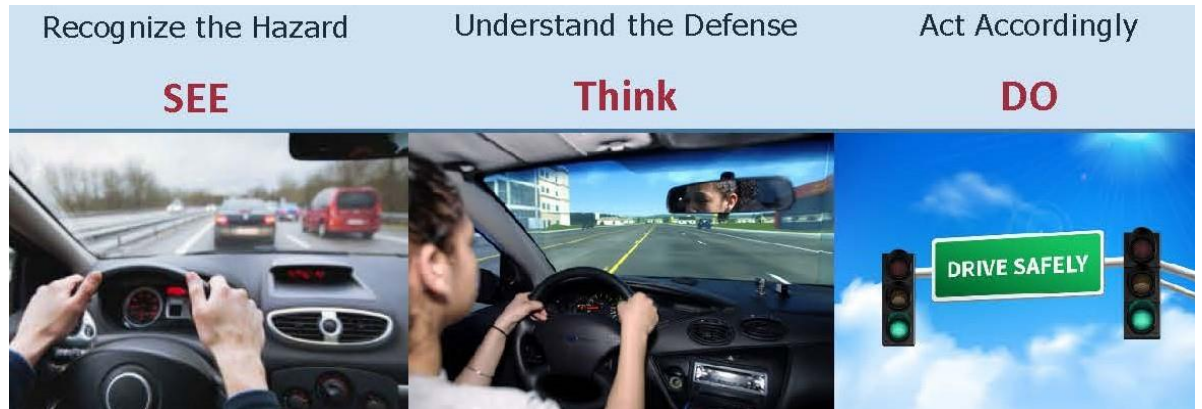
As the driver of a vehicle, you are ultimately responsible for the condition of your vehicle. Make sure the vehicle is ready for the road. The daily inspection enables the driver to find a problem or potential problem before taking the vehicle on the road. It is a good practice to do a brief daily safety inspection of your vehicle before you drive it. This also holds true for vehicles that you are not familiar with, such as rental cars.

Certain basic checks should as a minimum include:

- **Tires** : Properly inflated; firmly seated, check for wear
- **Windows** : Unobstructed and clean; check for any broken glass
- **Lights**: Headlights, brake and all lights all in working order
- **Horn**: Working properly

- **Leaks:** Any suspicious leaks, puddles
- **Gauges :** Working and well lighted, check for any problems
- **Steering:** Wheel adjusted properly, easy to turn,
- **Brakes :** Look for leaks, sounds of wear, stopping power

In order to be an "aware" driver, you must think and act defensively. Behavior plays a large role in driving and operating a motor vehicle safely. Our behavior can vary in any number of ways, dependent on outside influences. There are three behaviors, however, that should be an integral part of our driving technique at all times. These behaviors are called the Collision Prevention Formula.



SEE - RECOGNIZE THE HAZARD

- Scan the road ahead - 100m, to the next curve, hill or overpass in rural areas.
- Check your mirrors, inside and out, every three to five seconds
- Keep your attention focused on driving

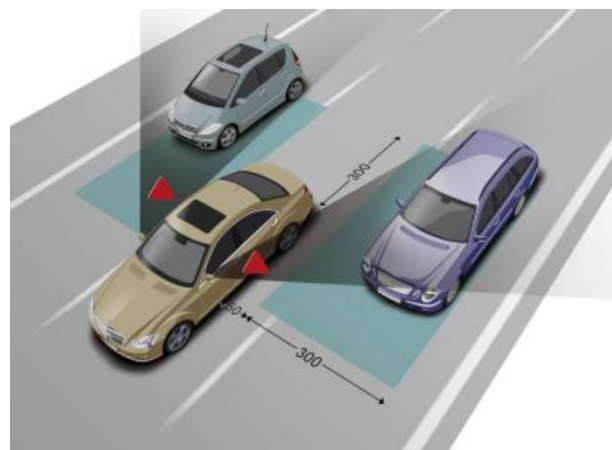
As you look ahead in city traffic, your eyes should scan 12 to 15 seconds ahead at 50 km/h. This distance is equal to about 100m, and is the depth at which our eyes should be focused most of the time. When driving in the open country, your scan should increase to 1 km ahead. Allow more frequent scanning times when weather or traffic conditions warrant. Use your scanning techniques and your peripheral vision. **Make full use of scanning every 3-5 seconds.** Eye movement should include a scan of vehicle instruments. **It is suggested you look at your instruments every 5 minutes.**

Avoiding Blind Spots

The area beside and behind your vehicle must be scanned by using your rearview and side view mirrors and turning your head to check blind spots.

All vehicles have some blind spots that cannot be seen in the mirrors. Be aware of these, and move your head as necessary to check them.

Usually, these are along either side of the vehicle, just behind and to the side of the driver. Do not drive in the blind spot of another vehicle as that puts you at greater risk from an unexpected lane change by the other driver, who is probably not aware of your presence. Move out of these blind spots as soon



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as possible to avoid this hazard. Many newer model vehicles now have blind spot monitors and alarms included as part of the safety package. These are very effective tools in alerting the driver to vehicles in the blind spot or when changing lanes and are worth the extra investment when purchasing a vehicle.

Maintain a Safe Following Distance

Follow the "The Two Second Rule". When driving during daylight hours on dry road, and the vehicle ahead of you passes a reference point (tree, road sign or any stationary object) begin counting, "one-thousand-and-one"; "one-thousand-and-two." If you reach the reference point before the count is finished, you are traveling too closely to the vehicle in front of you, and should increase your following distance. Add an additional second for each adverse condition, such as, rain, snow, sleet, darkness, and following truck or motorcycle.

THINK — UNDERSTAND THE DEFENSE

Proper understanding of defensive driving skills will prepare you to respond to an emergency situation:

- Know what to do (anticipate a reaction)
- Hard Brake vs. Soft Brake
- Skid control
- Complete avoidance, etc.
- Use the "What if Strategy" to keep your driving focused.

Examples of 'What if' are:

- You need to come to a sudden stop?
- A pedestrian steps in front of your vehicle?
- An oncoming vehicle doesn't dim their high beam lights?
- An animal runs in front of your vehicle?
- You encounter a broken down vehicle in the roadway?
- You need to make way for an emergency vehicle?
- Weather conditions impair your visibility or road traction?

DO — ACT ACCORDINGLY

Do the right thing — before the situation gets out of control. Speeding or driving too fast for conditions can drastically cut down your time to "do" anything-another reason to watch your speed.



Remember - safe driving begins with *your attitude*. A safe attitude while driving will help you think defensively, react defensively and drive defensively.



- ▶ Compliance with Group QHSSE 106-PO Driving is mandatory for all
- ▶ Have a valid driving license.
- ▶ Have appropriate insurance coverage
- ▶ Do not drive under the influence of drugs or alcohol
- ▶ Fasten your seat belt
- ▶ Do not be distracted (mobile device, eating, etc.) while driving
- ▶ Follow speed limits and Traffic Rules

Bureau Veritas Cardinal Safety Rules for Driving



FOLLOW SPEED LIMITS AND TRAFFIC RULES



DO NOT USE ALCOHOL OR ILLEGAL DRUGS WHILE WORKING OR DRIVING



DO NOT BE DISTRACTED WHILE DRIVING



WEAR YOUR SEAT BELT

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4.2 Hazardous energy control – Lock Out/Tag Out

5.2.1) What is hazardous energy?

Electricity is commonly viewed as a primary source of energy for machinery and equipment. The fact is, there are many other sources of energy which, when uncontrolled, can cause serious injury or even death during servicing or maintenance operations. It is important to understand the various types of energy so you can recognize their presence when servicing machinery or equipment. Remember, energy equals potential movement and movement creates hazards for you.

5.2.2) Energy hazards and controls

The main forms of energy found in the workplace include:

- **Electrical**
Uses: Power supply through wiring and outlets for lighting, machinery and equipment, includes residual stored energy from capacitors.
Hazards: Electrocutation, burns and trauma to extremities (fingers, hands, arms, feet, and legs).
Controls: Switches, fuses, circuit breakers, discharging, and grounding.

- **Hydraulic - Hydrostatic**
Uses: Pressurized fluid, oil or water, used to transfer force as in elevators, forklifts, cranes or construction equipment or in pressure testing of static pressure equipment.
Hazards: Leakage: Eye injuries and trauma extremities, equipment failure – explosive force.
Controls: Valves, switches, pressure gauges, bleeding down, venting and maintain a safe distance

- **Pneumatic**
Uses: Compressed air or gases used to power conveyors, manufacturing equipment or in compressed gas cylinders.
Hazards: Eye injuries, projectiles, and trauma to extremities (fingers, hands, arms, feet, and legs).
Controls: Valves, pipes, hoses, nozzles, pressure gauges, bleeding down, venting and maintain a safe distance

- **Mechanical**
Uses: Any moving machine or equipment parts powered from other energy sources, or residual stored (i.e. springs, flywheels), or potential energy (i.e. gravity due to elevated machine parts).
Hazards: Trauma to extremities (fingers, hands, arms, feet, and legs) from pinch points, rotating or reciprocating parts.
Controls: Blocking, repositioning, switches and circuit breakers.

- **Thermal**
Uses: Heat and cold used to treat, seal, or store materials including metal hardening-stress relieving-heat treatment, boilers, and food processing. Can also be residual energy from other forms (i.e. electrical transformers, mechanical friction, etc.).
Hazards: Burns, frostbite, hypo and hyperthermia.
Controls: Thermostats, switches, circuit breakers, and isolation.

- **Chemical**
Uses: Caustics, acids, and cleaning agents used to treat or create various materials.

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Hazards: Burns, eye injuries, and trauma from explosions or reactivity.

Controls: Valves, pipes, hoses, bleeding, and blanking.

■ **Radioactive**

Uses: Ionizing/non-ionizing radioactive materials or isotopes used to generate heat, reactivity or visibility such as in nuclear power generation, medicine, or industrial applications (i.e. gamma and x-ray radiography, etc.).

Hazards: Radioactive burns to skin and eyes, chronic biological effects including cancer or death.

Controls: Maintain safe distance, Shielding and isolation.

All in all, equipment and machinery are an integral part of our daily lives and contribute greatly to our capacity to produce goods and services in an effective manner. However, unless treated with respect, the hazardous energy associated with this equipment can kill. Maintaining a safe distance at all times is essential



APPLY LOCK OUT/TAG OUT METHOD BEFORE WORKING ON ENERGIZED EQUIPMENT

- ▶ Do not touch/remove a lock/tag unless specifically authorized
- ▶ Install lock/tag only if authorized and trained
- ▶ LOTO is a BV Cardinal Safety Rule
- ▶ Compliance with Group QHSSE 104-PO & PR Ionizing Radiation is mandatory for all



4.3 Slip, Trip and Fall Protection

5.3.1) What is a fall?

Falls are a leading cause of workplace injuries, and are the fourth highest cause of workplace fatalities. Falls range from trips or slips on level surfaces, to falls from stairways, ladders, and other elevated work surfaces.

5.3.2) Slip, Trip and Fall Hazards

Slips, trips and falls might occur because of:

- **Slipping Hazards:** Wet floors (water, oil, chemicals), Smooth floors (waxed, tile, metal)
- **Tripping Hazards:** Objects out of place, tools/equipment on floor, cords, hoses, uneven floor surfaces, holes in floor, faulty stairs or handrails
- **Ladders:** faulty, improper use
- **Scaffolds:** improperly maintained, lack of fall protection equipment
- **Elevated work platforms:** housekeeping, inadequate or missing guardrails, lack of personal fall protection
- **Roofs:** lack of personal fall protection or guardrails

Falls on level surfaces are normally the result of:

- **Slips** (loss of traction on work surface)
- **Trips** (movement of lower body is arrested)

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- **Missteps** (putting the foot down where there is no support)

The principle causes of slips and falls on level surfaces usually involve one or more of the following;

- **Footwear**
 - The coefficient of friction between the sole and the walking surface
 - The presence of foreign substances on the sole of the shoe
 - The condition of the shoe, i.e., heel height, worn heels
- **Your physical condition**
 - The method of walking, i.e., length of stride, gait, rushing.
 - Distribution of forces. Individuals vary in the distribution of lateral and longitudinal forces when walking
 - Physical disabilities that may contribute to slip or fall.

While both factors can contribute to slips or falls, attempts to control the risk factors are primarily focused on the walking surface. The walking surface is viewed as having the greatest slip hazard. It's also the one factor that's potentially the easiest to control.

Falls from height are devastating. The free-fall velocity at impact when falling from a height of just 4 meters is nearly 35 km/h. A person will hit the ground in just under one second after falling this distance. Each day people are killed and injured by falls from elevated work areas.

As a general rule, fall protection equipment is required when working from unguarded surfaces above 1.5 meters, or at any height when above machinery or equipment.

Whilst our clients or vendors have an obligation to be aware of workplace hazards that their workers may be exposed to and must take appropriate action to minimize or eliminate the exposure, you must not rely on such systems, if you are not certain about a the surface you are walking on, then do not proceed!

Workers and visitors to a company or site (you) are responsible for following the policies, procedures, and training requirements established by your own company. All fall protection systems serve one of two basic functions. They prevent or restrain a worker from falling, or they safely stop or arrest a worker who falls. These protection systems can include guardrails, safety nets, personal fall arrest systems, warning lines, safety monitoring systems, and controlled access areas.

5.3.3) Prevention measures

- **PPE:** proper footwear, fall protection, etc. (see section 3)
- **Good Housekeeping**
- **Good maintenance:** procedures of repair and upkeep of interior and exterior walking.
- **Self-Inspections:** the most efficient methods to recognize and correct slip and fall hazard
- **Guarded floor openings, hatchways, open sides:** rail on exposed sides, covering, etc.
- **Check of stairways, ladders & scaffolds before use**
 - All fixed ladders should be designed for a minimum single concentrated live load and may encompass the need for cages, wells, or ladder safety devices.
 - Stepladders should be equipped with a metal spreader or locking device. Ladders should be maintained in good condition, and defective ladders removed from service. Always inspect a ladder before climbing up or down it!

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- Scaffolds and their components should be capable of supporting, without failure, at least four times the maximum intended load.

Wearing fall protection when working at height is a BV Cardinal Safety Rule. Contractors are required to have their own fall protection equipment, systems, procedures and training if they are working at height. The general information in this handbook is provided as information only and does not replace the need for contractors to have a fall protection program implemented that meets legislative requirements.



- ▶ Compliance with Group QHSSE 103-PO Working at Height is mandatory for all
- ▶ Identify falling risks
- ▶ Always wear the appropriate PPE in good shape
- ▶ Adopt good practices and safe behavior
- ▶ Follow regular training
- ▶ If applicable, have the required permit/license
- ▶ **Wearing Fall Protection When Working at Height is a BV CSR**

4.4 Confined Space Entry

This guidance does not prepare you to enter a particular confined space. You must always ensure that you receive information and training from the operator of the facility where you are working, before you enter a confined space as they must have local safety measures and controls in place. **Obtaining authorization before entering a confined space is a BV Cardinal Safety Rule. Contractors are required to have their own confined space equipment, systems, procedures and training if they are entering confined spaces. The following general information is provided as information only and does not replace the need for contractors to have a confined space entry program implemented that meets legislative requirements.**



5.4.1)) *What is a confined space?*

A confined space is a space that is large enough and so configured that a worker can bodily enter and perform work that has limited or restricted means for entry or exit, and is not designed for continuous worker occupancy.

Examples of confined spaces include, but are not limited to tanks, vessels, silos, storage bins, hoppers, vaults, pits, etc... A clothes closet does not meet the definition since although it is big enough to work in and is not designed for continuous occupancy, it does not have limited or restricted means of entry or exit.

A confined space is a space that has one or more of the following characteristics:

- Contains or has a potential to contain a hazardous atmosphere or
- Contains a material that has the potential for engulfing an entrant or

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- Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section or
- Contains any other recognized serious safety or health hazard.

5.4.2) Confined Space Hazards

Many times workers who work in confined spaces face increased risk of exposure to serious hazards. The space itself poses entrapment hazards or the work being done in the confined space keeps a worker closer to hazards, such as hazardous atmospheres or moving parts of machinery.

Accidents that occur in confined spaces are often fatal, involving, in many cases, several workers. In general, over half of those who die in confined spaces would have been attempting to rescue colleagues who had gotten into difficulties. These are usually unauthorized rescues attempted by work colleagues who react instinctively to a colleague's distress. But there is documented evidence to show that qualified rescue workers have also died because they have not followed established procedures.

The human instinct to assist colleagues in danger is very strong, often with fatal consequences.

Ultimately the safety of the individual is a personal responsibility but the onus to provide all the risk control measures necessary to inform and direct the worker rests with the employer.

Every confined space must be evaluated for four types of hazards:

- **Oxygen-Deficient Atmospheres:** The normal atmosphere is composed of approximately 21% oxygen and 79% nitrogen. **An atmosphere containing less than 19.5% oxygen is considered oxygen-deficient.** The oxygen level inside a confined space may be decreased as the result of either consumption or displacement. Oxygen levels can also be reduced as the result of oxygen displacement by other gases.
- **Oxygen-Enriched Atmospheres:** Contain an oxygen concentration greater than 23.5%. An oxygen-enriched atmosphere will cause flammable materials, such as your clothing and hair, to burn violently when ignited. Oxygen-enriched atmospheres will also cause materials that are normally non-flammable to become flammable.
- **Flammable Atmospheres:** Generally result of flammable gases, vapors, or dust mixed in certain concentrations with air, or an oxygen-enriched atmosphere. Flammable gas, vapors or mists that are in excess of 10% of its lower flammable limit (LFL) or dusts that exceed their LFL are classified as being a hazardous atmosphere. Combustible gases or vapors can accumulate within a confined space when there is inadequate ventilation. Gases that are heavier than air will accumulate in the lower levels of a confined space. Work such as spray painting, coating, or the use of flammable solvents for cleaning can result in the formation of an explosive atmosphere. **Using intrinsically safe equipment in flammable atmospheres is a BV Cardinal Safety Rule. Contractors are required to have their own intrinsically safe equipment, procedures and training if they are entering confined spaces. The information provided here does not replace the need for contractors to understand the risks associated with flammable atmospheres and have a program implemented that meets legislative requirements.**



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- **Toxic Atmospheres:** Toxic atmospheres may be present within a confined space as the result of one or more of the following :
 - The product stored in the confined space. (e.g. walls give off toxic vapors when product removed or when cleaning the residual material in the confined space, production of toxic vapors with poor ventilation) ;
 - The work being conducted in the confined space. (e.g. welding with metals capable of producing fumes and gases, and painting or scraping the confined space).
- **Mechanical and Physical Hazards:** can result from :
 - Machinery - with rotating or moving mechanical parts or energy sources can create hazards within a confined space ;
 - Engulfment - If you sink or get covered by loose material such as fine coal, sawdust or grains, the material can get into your breathing passages very quickly, suffocating you. Drowning, for example, is engulfment by a liquid ;
 - Internal configuration - The internal layout of the confined space makes it possible for you to become trapped or to suffocate before anyone knows you are missing ;
 - Physical factors - such as heat, cold, noise, vibration, and wet surfaces can contribute to accidents. These factors should also be evaluated for all confined spaces.

5.4.3) Prevention measures

CONFINED SPACE ENTRY PERMIT

Confined spaces in the workplace should be identified and labeled as to their classification. At times, a confined space may have been overlooked, or may be created during the installation of new process equipment.

A permit is generally required to enter confined space. This permit is typically managed by the site operator or the vendor. Different Permit-to-Work regimes exist across the world, it is fundamental that you only enter spaces which have been confirmed as being safe for entry by a responsible person, that you are accompanied at all times and that the responsible person is informed of your entry and exit from the confined space. Where doubt exists, you must always seek guidance before proceeding.

A confined space entry permit indicates equipment, such as personal protective equipment, testing equipment, communications equipment, alarm systems, and rescue equipment to be provided, and is available at the space. It describes the communication procedures to be used by entry team to maintain monitored contact during the entry and it identifies any other information whose inclusion is necessary, given circumstances of the particular confined space, in order to ensure worker safety such as a hot work permit.

In case of an emergency, the attendant must be trained to summon the rescue service, and to perform non-entry rescue. If a rescue is required **DO NOT** enter the confined space to attempt a rescue.

Training must be provided to personnel regarding their roles and responsibilities before they perform a confined space entry.

There are also some non-permit confined spaces: this is a confined space that does not contain, nor, with respect to atmospheric hazards, has the potential to contain any hazard capable of causing death or serious physical harm. These spaces do not require entry permits that outline work procedures and practices to be used.



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CONFINED SPACE ENTRY PROCEDURE

To enter and work safely in a confined space you must understand the work procedures and practices that have been established by the responsible person.

If you have any questions regarding the procedures or your role/responsibilities in a confined space entry, ask questions during or after training. A complete understanding of the confined space entry procedures will minimize the possibility of an accident occurring.

The local responsible person will have procedures that are specific for the confined spaces at the facility, which typically includes:

- **Confined space entry team.** Only individuals who have been trained on their roles and responsibilities can be involved in the confined space entry ;
- **Purpose of the confined space entry.** Information on the work to be performed, date it will be done and duration of the entry permit. Usually an entry permit is valid only for the shift the entry team is working. If the work is extended into the next shift procedures for transferring to the next shift must be included as part of the entry permit system ;
- **Hazards.** The permit will make you aware of the hazards that are present in the confined space. For example it will state if a hazardous atmosphere exists in the space;
- **Control measures.** In many instances a confined space is a component in a process. The permit identifies the procedures for ISOLATING the confined space from the process. Isolation may involve the lockout/tag out of electrical systems, disconnecting or blocking pipelines or removal of equipment.
- **Specifies acceptable atmospheric conditions.** The permit identifies the concentrations of oxygen, combustible gases, carbon monoxide and toxic gases that may be present.

ATMOSPHERIC TESTING

This is the only way to know what the atmospheric environment is inside the confined space.

- Testing should be performed before entry and continue while anyone is working in the confined space;
- Monitoring results are documented on the entry permit.

PURGING

Purging of the confined space is required when the initial atmospheric testing does not meet the acceptable conditions. It is done before you enter the space. It displaces the poor air and is usually done using fresh air.

In some cases, water, steam or cleaning solution is required to remove residual materials from the confined space that pose atmospheric and other hazards. Once purging has been completed, atmospheric testing is performed, again to determine if the conditions are acceptable.

VENTILATION

Ventilation is needed to maintain acceptable atmospheric conditions inside the confined space when it is occupied by workers. The use of a mechanical system (blower with flexible ductwork) that will introduce outside air into the confined space should maintain acceptable atmospheric conditions inside the space. Atmospheric testing to verify conditions in the permit space are acceptable throughout the duration of entry must be performed and documented on the entry permit.



- ▶ **Compliance with Group QHSSE 102-PO Confined Space Entry is mandatory for all**
- ▶ **Identify confined spaces**
- ▶ **Do not underestimate the dangers**
- ▶ **Know your roles and responsibilities**
- ▶ **Follow work practices and procedures**
- ▶ **Refer to your BV Contact if any doubt**

4.5 Suspended Load

5.5.1) What is suspended load?

The transport and lifting of heavy loads are frequent on a worksite. When the workers must use specific lifting equipment such as cranes, hoist, bulldozer bucket or forklifts to carry a load, this is a suspended load. It's important that you always keep in mind that suspended loads present many serious hazards. In fact, these loads are difficult to control during their transportation because of their heavy weight. And so, they can cause serious injuries even fatalities if the suspended loads become out of the operator's control.



5.5.2) Suspended load hazards

There are three principle hazards related to suspended loads:

- **Suspended load falling:** The suspended load detaches the lifting hook and violently hit the ground.
- **Suspended load sway:** The suspended load swing and cause collateral damages.
- **Suspended load collision:** The suspended load hits an obstacle during its transportation resulting in the load falling.

These suspended load hazards results from one or more of these causes:

- **Lifting equipment :**
 - A poor maintenance or/and bad condition of the lifting devices
 - An operator misuse or/and inattention
 - An overload of the lifting device
- **Load preparation :**
 - An inappropriate packaging of the load
 - An improper attachment to the lifting equipment
- **Worker practices :**
 - Standing under the suspended load during lifting operation
 - Crossing the suspended load lifting passage



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- A poor training about to use the lifting equipment

5.5.3) Prevention measures

In order to minimize suspended load risks, it's easy to implement the following recommendations and directives:

- **Never stand under a suspended load:** Even if someone indicates you to work under a suspended load, you must never take the risk.
- **Ensure workers training:** During the lifting operations you must use appropriate and established hand signals to communicate with the lifting operator.
- **Verify the area is marked:** You must always verify if the area under and near the lifting zone is well marked to prevent you and anyone to cross or to stand under the suspended load passage. (min. 10feet/3m around the suspended load passage)
- **Ensure Lifting device maintenance:** you must ensure the good condition of the lifting device and check if maximum lifting load is well respected by the operator.



- ▶ **Never stand, walk or work under a suspended load**
- ▶ **Verify the lifting area is well marked**
- ▶ **Always check if the lifting operation is safe**
- ▶ **Follow regular training to know how communicate with lifting operators**
- ▶ **Do not walk under suspended loads is a BV CSR**

- **Make sure the lifting operation is safe:** the load must be well attached and packaged by the operator before the lifting. You must ensure the lifting operation near your workplace is totally safe. During the lifting, always check if the suspended load near you isn't swinging.

Always keep in mind the accidents related to suspended loads are often serious even fatal. So don't stand or work under any suspended load.

4.6 Manual Handling

5.6.1) What is manual handling?

Manual handling represents any activity which requires your hands or your bodily force to manipulate a load, whatever it is. That includes all lifting, pushing, pulling, carrying and other actions with your hands or any part of your body applied to a load.

Manual handling concerns all workers so it represents one of the most common risks at work even if it rarely results in serious injuries.

5.6.2) Manual handling hazards

An improper manual handling can lead to skeletal or muscle disorders. It directly depends on the kind of manual handling and the way that you proceed to execute the task.

You can expose yourself if you:

- **Try to manipulate a too heavy load and/or**
- **Execute repetitive manual handling and/or**
- **Work uncomfortably and/or**
- **Progress without any field of view**

The main effect of musculoskeletal disorder is a back pain that can become irreversible and lead to a partial incapacity.

Some other situations can be unsafe such as handling load that are improper to grasp. In these cases, the load can drag your hands and fall, generating injuries to you or your near coworker.

5.6.3) Prevention measures

To prevent any injuries, you must assess the manual handling risks and find solutions to avoid them.

- **Eliminate the heavy lifting:** In your manual handling tasks, use a mechanical lifting device to transport if the load is too heavy, or transport it with colleagues.
- **Try to improve the workplace design and layout to ease the task:** That eases your repetitive task and makes you more comfortable to execute the task.
- **Wear gloves:** Wearing gloves improves your grasp of the load.
- **Use a proper posture:** If you need to pick up a load on the ground, bend your knees to keep your back as straight as possible.
- **Keep a good field of view and a clear workplace:** A clear and open sight allows you to progress without risks when the way is unobstructed. In any case, it's imperative to use an appropriate and proper back posture if you need to do manual handling task.



- ▶ **Ensure the work place is clear**
- ▶ **Adopt an appropriate and comfortable posture to do the task**
- ▶ **Handle only loads adapted to your physical condition**
- ▶ **Use lifting devices if you need**

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4.7 Chemicals

Chemicals are used in industry, agriculture and transport. They present many benefits when they are properly used. In fact, they allow a better quality of life through pharmaceuticals, cosmetics, food, etc...

However, they have also hazardous aspect. In some cases, they can lead to environmental pollution and safety disaster if they are improperly managed. According to the 2011 WHO (World Health Organization) data, 47 000 persons die every year as a result of chemical poisoning.

5.7.1) Chemical hazards

Two kind of chemical hazards can be considered for human health:

- **Chronic exposure:** occurs when you are regularly exposed to low concentrations of chemicals e.g. the CMR (Carcinogenic, Mutagenic, toxic for Reproduction). This is the most common chemical hazard. It can lead to serious disease after a long period of time such as cancer.
- **Acute exposure:** occurs when you are exposed to a major concentration of chemicals in a short time period. This chemical hazard mainly depends on the characteristic of the chemicals. It can lead to a various kind of injuries such as skin burn, lungs damages, etc...

In all case, the chemical hazards depend on:

- **The characteristics of the chemical** (irritant, toxic, carcinogen, etc...)
- **The routes of exposure :**
 - Respiratory tract
 - Digestive tract
 - Skin absorption
 - Injection
- **The quantity of exposure**
- **The exposed person**

Moreover chemicals can present an instability risk related to:

- **Incompatibility of different chemicals:** the chemicals mixing can be out of control during the manipulation and generate unsafe reaction e.g. explosion or massive gaseous emission.
- **Improper conditions of storage:** some chemicals required very specific conditions of storage to remain stable e.g. specific temperature, dryness, etc. If you need to repack chemicals, you must duplicate their chemical labels and use appropriate containers to avoid any future misuse.

5.7.2) Prevention measures

Where possible, applying risk hierarchy for deciding the preventive measures is critical (elimination, substitution, engineering controls, administrative controls and finally PPE).

Globally Harmonized System of Classification and Labeling of Chemicals (GHS) inventories all chemical substances used and their risks for environment and health. The GHS has pictograms related to the different chemical risks.

You should always check the pictograms of a chemical label before handling to know its risks.

In addition, a SDS (Safety Data Sheet) is provided with all workplace chemicals. This SDS contains all risks and advices related to the chemical storage and use.

So, you should always read the label and the SDS of the chemicals which you need. Moreover, some chemicals may require specific PPE such as respirator or safety glasses. That's indicated on their label and SDS and it's mandatory to respect these requirements.

World	Description	Europe
	T – Toxic	
	T+ – Very toxic	
	Xi – Irritant	
	Xn – Harmful	
	C – Corrosive	
	Hazardous for the environment	
	F – Easily flammable	
	F+ – Highly flammable	
	Oxidizer	
	Explosive	
	CMR	
	Caution	
	Gas under pressure	

CMR: Carcinogenic, Mutagenic, Teratogenic
 Caution: used for less serious health hazards like skin irritation



- ▶ Always read the chemical label and MSDS before use
- ▶ Duplicate the label when repacking chemical
- ▶ Wear appropriate PPE
- ▶ Ensure the compatibility is safe when chemicals

4.8 Security

5.8.1) Security hazards

Two main security risks are identified while you are working for Bureau Veritas:

- **Travel security risk:** they directly depend to your work destination. These risks can be insignificant to extreme e.g. in countries where government control or law order are minimal.
 - Related to violence: as an expatriated worker, you can be the target of terrorism acts, kidnapping etc.

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- Related to robbery and theft: keep in mind your personal effects can be a target.
- **Site access risk :**
 - Related to worksite intrusion: the security gate ensures a control of all the site staff to avoid the presence of unwanted people on the worksite.
 - Related to terrorism: in some unstable countries, the worksite can be the target of terrorism acts.
 - Related to robbery and theft: an intruder could steal worksite equipment or could commit industrial espionage by stealing or copying confidential data.

5.8.2) Prevention measures

You should always adopt the following rules:

- **Always create a travel journey:** When you need to travel for your work, a work program also called a travel journey should be created by you. You must always respect it to avoid any dangerous situation.
- **Ensure the employment of security precautions is always able to protect you:** This is especially applicable for journeys in unsafe countries.
- **Be vigilant with your personal effects:** Keep an eye on your effects e.g. your luggage can prevent you from robberies or thefts.
- **Stay out of any dangerous and violent situations**
- **Always secure your passport** (if you don't have to leave it at a hotel reception) **and all valuable and confidential documents**
- **Remain discrete:** You can avoid many unsafe situations by not standing out.
- **Present your ID at the security gate:** You must register at the security gate to establish your presence on the worksite and indicate when you leave the worksite.



- ▶ **Compliance with Group QHSSE 115-PO Travel Health and Safety and Group QHSSE PR-115 Travel Security for High Risk Destinations is mandatory for all**
- ▶ **Always avoid hazardous situation**
- ▶ **Put your personal/work documents/cards in a secure location**
- ▶ **Do not provide personal/work information inappropriately**
- ▶ **Register at the worksite security gate**
- ▶ **Follow the travel journey**

5.8.3) Data Security

When undertaking inspection assignments, inspectors are typically supplied with information which is either confidential to Bureau Veritas or the client, when conducting inspections, the inspector will often be exposed to information which is confidential to the Vendor/manufacturer/local facility.

This data/information can be in either electronic or paper based format.

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In all instances where confidential data/information is used, it must remain secure with all copies retained having express permission of the owner. Such information should be maintained safely and securely when being used and always destroyed (or returned to the owner) upon completion of the relevant activity. Taking copies for personal information of sharing with other parties is expressly prohibited.

4.9 Fitness for work

5.9.1 What is fitness for work?

Some specific client contracts require that the worker's fitness for work is verified before starting work. If needed, fitness for work is verified through a medical assessment performed by an occupational doctor.

5.9.2 Fitness for work hazards

All workers are expected to be fit for work before engaging in work for the Bureau Veritas. An unfit worker will pose a hazard to themselves and others around them, especially in the case of physically or mentally demanding work. Any worker who is declared unfit for work must not undertake work for Bureau Veritas.

5 Collective Protective Equipment and Personal Protective Equipment

5.1 Collective Protective Equipment

Falling

If working at height, once the surface has been determined to be safe, the responsible person for the location should then select one of these options if the work operation presents a fall hazard:

- Controlled access zone
- Guardrails
- Personal Arrest System

Visitors to a client site (you) are responsible for following the policies, procedures, and training requirements established by the client. These protection systems can include guardrails, safety nets, personal fall arrest systems, warning lines, safety monitoring systems, and controlled access areas.

Guardrail systems

Guardrails must be free of anything that might cut a worker or snag a worker's clothing, again. Local legislation defines the legal minimum for height and strength of guard rails, if you are in doubt as to the adequacy of guard rails, seek guidance. Do not put your safety at risk.

Safety nets

Safety nets are conventional arrest systems and should be installed as close as possible below the surface, but in no case more than 10 meters below the working surface.

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Warning Line Systems

Warning line systems are designed to prevent entry to a hazardous area. Warning lines may consist of ropes, wires, or chains, and supporting stanchions set up as follows. Flagged with high-visibility material. Rigged and supported at the lowest point (including sag). Attached to each stanchion in such a way that pulling on one section of the line will not result in slack being taken up in the adjacent section.



5.2 Personal Protective Equipment

When entering an industrial environment, you are required to:

- Conduct a documented hazard assessment of the workplace indicating where PPE usage is required
- Provide the necessary PPE and ensure it fits properly, is used and maintained in a sanitary and reliable condition
- Ensure the equipment is adequate, properly maintained, and clean.

Various types of PPE are widely used in industry. No matter the type, it is designed to provide you with an additional layer of protection against the hazards you may face.

As a general rule, at a minimum, you should be wearing a suitable protective clothing (coveralls, a boiler suit, etc.), a hard hat, safety glasses, protective gloves and protective footwear ware. **Wearing the required PPE is a BV Cardinal Safety Rule. Contractors are required to have their own personal protective equipment, procedures and training. The following general information is provided as information only and does not replace the need for contractors to have a PPE program implemented that meets legislative requirements.**

The types of PPE addressed in this handbook include:

- Head protection
- Foot protection
- Eye protection
- Hand protection
- Respiratory Protection
- Hearing Protection



PPE is not designed to be the primary method of protection against injury. Engineering, Work Practice, and/or Administrative Controls are the primary methods to protect you against potential injury. PPE should be used in conjunction with (not in place of) these controls to provide for worker safety and health in the workplace. Selection of the proper PPE for a job is important.

5.2.1 Eyes and eye protection

6.2.1.1) Eye Injuries

Potential injuries to the eye may result from exposure to:

- **Dusts, Powders, Fumes and Mists** can cause damage to the cornea of the eye. The cornea can be scratched or chemically affected in many ways. If the cornea becomes opaque and cataracts

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develop, vision may become severely limited ;

- **Toxic Gases, Vapors and Liquids** can damage parts of the eye, or allow these materials to be absorbed into the body ;
- **Flying Objects or Particles** can damage or become embedded in the cornea of the eye ;
- **Thermal and Radiation Hazards Including Lasers.** Heat and radiation (i.e., from welding and lasers) can cause damage to the eye even if exposure is extremely short. For radiation exposures, the extent and location of the damage within the eye is dependent upon the length of exposure and the wavelength of the light.

6.2.1.2) Selection of protective wear

Each eye, face, or face-and-eye protector is designed for a particular hazard. In selecting the protector, consideration should be given to the kind and degree of hazard, and the protector should be selected on that basis.

Some guidelines are presented below to assist in proper selection.

- **Safety Glasses** are designed for eye protection. Standard safety glasses are designed to protect from flying objects. Safety glasses have impact-resistant lenses and frames that are far stronger than those of regular eyeglasses. They should be equipped with side shields to protect your eyes from projectiles entering from the side. Safety glasses are available in prescription form if you need corrective lenses;
- **Splash Goggles** are designed for impact as well as splash protection. Goggles may have direct or indirect ventilation. Indirect ventilation provides better protection if you are exposed to splash hazards. Splash goggles may be worn over safety glasses or prescription lenses;
- **Face Shields** are designed for face protection. Some countries also require that safety glasses or splash goggles be worn when wearing a face shield;
- **Filter Lenses and Plates** are designed for protection against laser or ultraviolet (UV) light. The proper selection of filters is critical. No single filter will provide protection against all wavelengths of radiation. Ask the filter manufacturer for assistance in selecting the appropriate lenses.

Eye protectors must meet the following minimum requirements:

- Provide adequate protection against the particular hazards for which they are designed;
- Are reasonably comfortable to wear under the designated conditions;
- Fit snugly without interfering with the movements or vision of the wearer;
- Are durable;
- Are capable of being disinfected;
- Are easily cleaned;
- Are kept clean and in good repair.
- Every protector shall be distinctly marked to facilitate identification of the manufacturer.

Inspection and Maintenance

It is essential that eye protection be kept clean and stored in a clean location. Continuous vision through dirty lenses can cause eyestrain – often an excuse for not wearing the eye protection. Daily inspection and cleaning with soap and hot water, or with a cleaning solution and tissue is recommended. Pitted lenses, like dirty lenses, can be a source of reduced vision and should be replaced

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5.2.2 Head Protection

6.2.2.1) Selection of protective wear

Each type and class of head protection is intended to protect against specific hazardous conditions. An understanding of these conditions will help in selecting the right hat for the particular situation. Protective hats are manufactured to different types and classifications. Before using a hard hat – you should ensure that it is suitable for the intended application and complies with local legislation.

Each helmet/hard hat consists essentially of a shell and suspension. Ventilation is provided by a space between the headband and the shell. Each helmet should be accompanied by the instructions explaining the proper method of adjusting and replacing the suspension and headband. The wearer should be able to identify the type of helmet by looking inside the shell for the manufacturer.

Helmets are date stamped by the manufacturer, and should be replaced no later than the date recommended by the manufacturer, e.g., 5 years.

6.2.2.2) Inspection and Maintenance

Manufacturers should be consulted with regard to paint or cleaning materials for their helmets, because some paints and solvents may damage the shell and reduce protection by physically weakening it or negating electrical resistance. A common method of cleaning is dipping them in hot water containing a good detergent for at least a minute. Shells should then be scrubbed and rinsed in clear hot water. After rinsing, it should be carefully inspected for any signs of damage.

All components - shells, suspensions, headbands, sweatbands, and any accessories - should be visually inspected daily for signs of dents, cracks, penetration, or any other damage that might reduce the degree of safety originally provided.

Helmets should not be stored in a location where they may be exposed to sunlight and/or extreme heat. These conditions may adversely affect the degree of protection the helmet provides.

5.2.3 Foot Protection

6.2.3.1) Selection of protective wear

To protect feet and legs from falling or rolling objects, sharp objects, molten metal, hot surfaces, and wet slippery surfaces, you should use appropriate foot guards, safety shoes or boots, and leggings. Leggings protect the lower leg and feet from molten metal or welding sparks. Shoes with heat-resistant soles protect against hot surfaces like those found in the roofing, paving, and hot metal industries. In some shoes, metal insoles protect against puncture wounds. Safety shoes come in a variety of styles and materials, such as leather and rubber boots.

- **Protective Footwear** – Shoes designed to provide protection against impact and compression injures to the toes. While often called steel-toed shoes, they are available in other materials, and come in a variety of styles; some even provide electrical shock and puncture protection. Protective footwear comes in a variety of impact and compressive strength ratings but must be steel toed (protection) ;
- **Metatarsal Protection** – Shoes or boots designed with a cover to protect the long thin bones of the feet to which are toes are connected. Metatarsal protection is generally used in conjunction is protective footwear ;
- **Chemical Resistant** – Shoes, boots or coverings which are designed to provide protection against a certain chemical or class of chemicals. No single material will provide protection

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against all chemicals. Your employer needs to select chemical resistant footwear based upon the chemical(s) for which you are seeking protection ;

- **Slip Resistant** – Shoes or boots designed to resist slipping on oily or wet surfaces. When selecting slip resistant footwear, consideration needs to be given to the flooring surface on which the shoes are generally worn and the material (water or oil) which makes the surface slippery.
- **Thermal** – Shoes or boots designed to provide protection against thermal extremes.

6.2.3.2) Inspection and Maintenance

- Inspect footwear daily for damage.
- Repair or replace worn or defective footwear.
- Ensure laces are not worn, frayed or too long.
- Don't wear wet or damp footwear.
- Store in a clean dry location, to protect from damage.

5.2.4 Hand Protection

6.2.4.1) Selection of protective wear

There is a wide assortment of gloves, hand pads, sleeves, and wristlets for protection against various hazardous situations.

Many types of gloves are available. These include:

- **Cotton gloves** protect against certain mild cuts and scrapes;
- **Leather gloves** protect against cuts, scrapes and bruises when handling rough materials;
- **Chemical Resistant gloves**, made of natural and artificial rubber as well as vinyl and other materials, protect against specific chemical hazards. No single chemical resistant glove material can protect against all chemicals, make sure you are wearing the right protective material;
- **Aluminized gloves** protect against heat;
- **Steel mesh and Kevlar gloves** provide limited protection against cuts;
- **Electrically insulated gloves** protect against electrical shock.

6.2.4.2) Inspection and Maintenance

Inspect gloves daily, prior to wearing, to ensure damage is not present. Signs of damage include:

- Cuts
- Tears, especially at the finger webbing
- Punctures
- Discoloration
- Stiffness
- Embedded foreign material
- Rubber gloves can be filled with air to see if they leak.

When storing gloves, place them in well-ventilated bins or shelves at normal room temperature away from direct exposure to sunlight. Prior to storing, make sure the gloves are free from chemicals by following the appropriate cleaning procedure.

PPE can be effectively used only if equipment selection is based on the intended use, the hazards and the equipment is properly inspected, maintained, and worn.

Bureau Veritas requires that all independent contractors are suitably aware of the types of hazards that they may come into the proximity with and likewise are informed on the appropriate actions to take, including the correct use of PPE.

If you do not have the appropriate PPE you must not perform any services.

5.2.5 Hearing Conservation

6.2.5.1) What is hearing conservation?

Hearing is one of the most critical senses of the human body, therefore you need to remember how important our hearing is and take steps to protect it.

Every sound produced has a certain amplitude or sound pressure. Not all levels of sound pressure are considered harmful to hearing. Generally sounds over 85 dB are considered potentially harmful. At this level, however, you will not feel pain. Pain generally occurs at 120 dB or greater.

From the levels listed for the various sounds, the dB scale is not linear. The decibel scale is logarithmic. Each three dB increase is actually a doubling of the sound pressure.

Therefore 83 dB is twice as intense as 80 dB, however, we need about a 10 dB increase to perceive a sound as being twice as loud. This is important, because as sound levels exceed 85 dB, it becomes even more critical to wear the appropriate hearing protection.

Common dB Levels	
▶ Whisper	20 dB
▶ Chirping Bird	30 - 40 dB
▶ Office Sounds	40 - 60 dB
▶ Normal Conversations	50 - 60 dB
▶ City Traffic	70 - 90 dB
▶ Vacuum	80 - 90 dB
▶ Music Head Phones	70 - 90 dB normal hearing level - 115 dB "cranked"
▶ Lawn Mower	90 - 100 dB
▶ Car Racing	100 - 110 dB when seated close to the action
▶ Circular Saw	100 - 120 dB
▶ Jack Hammer	100 - 120 dB
▶ Rock Concert	100 - 130 dB
▶ Shotgun	120+ dB

6.2.5.2) Hearing conservation hazards

NOISE is associated with two types of hearing loss:

■ Temporary Hearing Loss

- A temporary loss of hearing due to exposure to a high level of noise (such as a rock concert)
- Once exposure stops your hearing begins to recover, with complete recovery in several hours - or sometimes days
- The loud noise causes a temporary impairment of our Cochlea hair cells.

■ Permanent Hearing Loss

- Progresses as high-level noise exposure continues, month after month and year after year
- Hearing loss is noticeable only when it is great enough to interfere with routine activities
- Cochlea hair cells are impaired by the constant exposure to sound and slowly die.

6.2.5.3) Prevention measures

Hearing protection is available to reduce the amount of noise you are exposed to. Anytime you are exposed to sound levels over 85 dB, hearing protection should be considered.

The proper selection of hearing protection requires that the protection is correct for the job, provides the appropriate amount of protection, and is comfortable enough for you to wear. It is your employer's responsibility to provide you with hearing protection that meets these criteria. Hearing protection is generally available in three styles:

■ **Earplugs :**

- Inserted to block the ear canal
- Available pre-molded or moldable (such as foam plastic or silicone)
- Disposable and reusable styles available
- Custom molded earplugs are also available.



■ **Canal caps :**

- Earplugs held over the ends of the ear canal by a rigid headband
- Lightweight, best for intermittent use only.






■ **Earmuffs :**

- Sound insulating muffs, with soft ear cushions held by a rigid headband
- Available in models that attach to hard hats, if needed
- Can be used with earplugs, if additional protection is necessary.



Each type of hearing protection has its advantages and disadvantages. Listed below are the advantages and disadvantages of earplugs, canal caps, and earmuffs.

			
Advantages	<ul style="list-style-type: none"> • Small and easily carried • Convenient to use with other PPE • Comfortable in hot, humid work areas • Convenient for use in confined work areas • Lowest price per unit 	<ul style="list-style-type: none"> • Easier to carry than ear muffs • Easy to be seen at a distance • Easier to fit than earplugs • Excellent for intermittent use 	<ul style="list-style-type: none"> • Easiest to fit • Easily seen at a distance • Not easily misplaced or lost • May be worn with minor ear infections
Disadvantages	<ul style="list-style-type: none"> • More time required to properly fit • Require good hygiene practices • May irritate the ear canal • Easily misplaced • More difficult to see and monitor usage 	<ul style="list-style-type: none"> • Requires some time to fit • Not as portable as earplugs • Generally provides less protection than plugs or muffs • More difficult than muffs to keep clean 	<ul style="list-style-type: none"> • Less portable and heavier • Difficult to use with other PE • Can be hot to wear • May interfere with wearing safety glasses

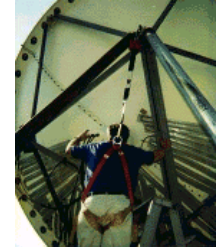


- ▶ **Identify areas where hearing protection is needed**
- ▶ **Always wear hearing protection when necessary**
- ▶ **Wearing the Required PPE is BV Cardinal Safety Rule**

5.2.6 Fall Protection

- **Personal Fall Arrest System**

Personal fall arrest systems are used to halt a fall from elevated work levels. Such systems consist of a full body harness, a lanyard or lifeline, and one or more anchor points. These systems are designed to limit the distance of a fall to less than 2 meters. When falling 2 meters, a person may exert a shock on the fall protection system of up to 10 times their body weight. If you are required to use a fall arrest system, ensure you are accompanied by a qualified person relating to the wearing of the harness, it's attachment and to ensure it is in a safe working condition. Note some countries require that such systems are inspected and certified on a periodic basis.



6 On-Site

Before performing work under a Bureau Veritas contract, all Independent Contractors are required to conduct their own HSSE assessment. It's recommended that the BV "2 minutes for my safety" checklist or equivalent is used. Below is an overview of "2 minutes for my safety":

6.1 Planning for the job

Based on the task description, you should check for



- What will you be doing at this client site?
- That name and phone number of local contacts are available
- That you have the **appropriate PPE** (personal protective equipment) and that they are in good condition
- That you have the requested **permit/license** to deliver this service (clearance, confined space entry permit, etc.)
- What the best **itinerary or schedule is**
- If it is a team effort, one member of the team should be assigned as the safety contact.

Do you have all needed information to safely deliver the services?

6.2 Arrival at client site



- You check in at the security gate and get in touch with local client contact
- You wear the proper PPE
- You ask for a site tour of the job location
- You ask for general safety and security requirements
 - Specific risks
 - Evacuation
 - Fire
 - First aid

Are you sure the risks of your working environment are under control?

- You check:
 - Site access and traffic rules
 - The potential risks in my work area

6.3 Spotting the hazard (2 Minutes for MY Safety)

Before starting the job you verify your work environment is safe by asking and answering yourself the following questions.

Y N

Hazards

- Is the equipment/energy isolated?
- If a permit is required, e.g. confined space entry, do you have it?
- Are tools and equipment in good condition and tagged?
- In your work environment, are all necessary equipment (vehicle, conveyors, etc.) isolated?
- Is the walking surface free of slip, trip and fall hazards?
- Is the appropriate barricading for the task in place?
- If someone works above you, are you protected from a falling object?
- Have you communicated with the other groups about their activities?

Personal Health

- Are you fit for this task?
- If the task involves heavy lifting, are you equipped to manage this factor?
- Are you using the correct PPE?

Conditions

- If extreme weather conditions are a factor on this job, are measures in place to manage it?
- Are you familiar with the equipment you inspect?

A "NO" requires an action plan.

6.4 During the job

- You respect general safety and client's safety requirements
- You pay attention to the potential changes to my work environment
- If You notice that a sudden change occurred and might impact your safety and/or your job
- You take 2 minutes for your safety
 - YOU STOP YOUR JOB (STOP WORK AUTHORITY)
 - YOU INFORM THE CLIENT
 - YOU REDO THE HAZARD ASSESSMENT BEFORE RESTARTING YOUR WORK
- If the situation cannot be addressed with the client, you contact BV.
- 2 minutes for evaluating the risks is better than an accident!

It is your right and your duty to take care of your safety!

6.5 After the job

- You clean equipment and return it to storage
- You check that the work area is clean



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- You note if you need to replace any PPE
- You inform the client that you are leaving the jobsite
- You **inform site and BV management** about any unsafe conditions or hazards observed during the work on sites such as:
 - Hazardous situations
 - Incidents
- This information will be used to improve the risk assessment of the location you work at and the overall safety of the activities.

If you have a question or a comment, contact your BV Contact.

6.6 In case of emergency or Injury

- I should ask for client's emergency resources
- I MUST notify my BV contact immediately

If a fatality or an accident with or without lost time occurs it is mandatory to immediately inform your BV contact who will inform the BV HSSE Manager.

A written incident summary must be provided to BV as soon as possible (within 2 days). A full investigation report must be also forwarded within 10 days after the accident occurs. This report includes all details and information related to the incident and the root causes. The BV contact will be required to follow the internal incident reporting procedures to generate the BV investigation report and RCA analysis.

7 Acknowledgment

CONFIRMATION OF UNDERSTANDING AND UNDERTAKING OF BUREAU VERITAS' REQUIREMENTS

I hereby confirm to have read and understood the content of this hand book. Where I have had any questions, I have sought guidance from my Contact Person within Bureau Veritas.

When undertaking my duties as an independent contractor to Bureau Veritas, I hereby confirm that I will apply the requirements as detailed in this handbook and referred information therein, to ensure that I conduct my work to the highest standards of safety, security and professionalism.

In doing so I confirm that I have forwarded valid copies of the following documentation to support my engagement as an independent contractor/nonexclusive/subcontractor to Bureau Veritas.

- Latest Professional Curriculum Vitae/Resume
- Driver's Licence
- Fitness of Work statement / Medical Certificate from a Medical Professional if requested by the local Bureau Veritas Office
- Copy of Vision Acuity Test (to Jaeger 2 or equivalent) completed in last 12 months if requested by the local Bureau Veritas Office

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- Copy of Professional Indemnity Insurance Cover (if requested by the local Bureau Veritas office)
- Copies documentation (as relevant) confirming any personal vehicles used in the course of business are legally safe, insured for business use.
 - Confirm that you are “fit” for work and to drive;
 - Confirm that you hold valid and appropriate driving license;
 - Do not be under the influence of alcohol or drugs while working and driving (excluding medication as approved by a Medical professional) ;
 - Bureau Veritas requirements do not supersede site and/or local statutory requirements ;
 - Obey the speed limit, do not use mobile communication devices while driving, both drivers and passengers must wear seatbelts at all times, have suitable insurance for vehicle ;
- **Copies documentation (as relevant) confirming other needed qualification for the work you have been assigned: electrical work, work at height etc;**
- Wear appropriate PPE in good conditions (minimum safety shoes, hard hat, goggles and gloves and other PPE according to risk analysis)
- The travellers Independent contractor/Non-exclusive/Subcontractor has to confirm that he has medical insurance
- The travellers Independent contractor/Non-exclusive/Subcontractor has to confirm that he has repatriation insurance

I confirm that as per the information set out in this hand book that I possess all applicable PPE and that it is in good working condition and within expiry date as applicable and that I understand that it must be used at all times.

I hereby undertake to maintain as confidential, all information (except that which is, or shall lawfully become public knowledge) relating to the clients of Bureau Veritas with which I become acquainted while acting for, or on their behalf.

I further undertake not to retain any files, papers or records of any type whatsoever which relates to the activities of clients of Bureau Veritas, except as it is necessary for the performance of activities for which I have been assigned.

Should I be requested by Bureau Veritas to participate in any activity that potentially presents a conflict of interest, I shall, prior to accepting the assignment, inform the appropriate Bureau Veritas contact and provide information relating to the scope and extent of previous involvement. It shall then be Bureau Veritas’ decision as whether, the activity is reassigned.

<i>Independent Contractor Name</i>	<i>Date</i>	<i>Signature</i>

Validation:

	Proposal	Verification	Approval
Name	Vicdan UZUNOGLU	Servane Collier	Paulo BALAGUEIRAS
Function	Group Safety and Security Manager	Group QHSSE Director	Group QHSSE VP
Date	04/06/2021	09/06/2021	11/06/2021