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Safety at work
TOTAL'S GOLDEN RULES
WE COMMIT TO FOLLOWING THEM!



Safety at Work

Total's Golden Rules

To prevent occupational accidents:

- ▶ **Clearly explain the basic rules that everyone should know and apply.**
- ▶ **Strengthen prevention by encouraging people to step in whenever they see something being done wrong.**
- ▶ **Stop work if the risk is not being properly managed.**

“ Accidents are not inevitable. And though the kinds of risks we encounter may vary with our different disciplines, we all have one thing in common: a duty to protect ourselves and our colleagues in the workplace.

The Golden Rules set out in this booklet are based on feedback and lessons learned. Encompassing the situations most frequently encountered, they bring us closer to a more effective management of the risks specific to our businesses.

Strict compliance with these rules is pivotal to preventing accidents in our own and contractor operations. Safety is everybody's business, every day.

I have no doubt that with everyone's commitment to rigorously apply the Golden Rules **“for me, for you, for all”**, we will achieve a safety culture worthy of the Group's ambition.

”

**Christophe de Margerie,
Chairman and Chief Executive Officer**



The Golden Rules for safety at work are intended to be shared across Total's businesses and operations. They must be fully understood and obeyed by everyone.

These rules are intended for the people who organize work, the people who carry it out and the people who inspect it.

They are based on systematic processes for identifying, assessing and managing risks.

They are one component of an appropriate identification and sanction policy.

-  **1** High-Risk Situations
-  **2** Traffic
-  **3** Body Mechanics and Tools
-  **4** Protective Equipment
-  **5** Work Permits
-  **6** Lifting Operations
-  **7** Powered Systems
-  **8** Confined Spaces
-  **9** Excavation Work
-  **10** Work at Height
-  **11** Change Management
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HIGH-RISK SITUATIONS



Downgraded situations, complex operations and operations performed infrequently temporarily increase risk.

Downgraded situations (temporarily disabled automated safety systems, temporary seals, etc.):

- Must be reported to the unit's operations manager.
- Measures to mitigate the resultant risks must be defined, approved, applied and regularly checked.
- A list of "downgraded situations" is updated daily and communicated to the personnel concerned.

Complex operations and operations performed infrequently (equipment or installation startup, work on powered systems, etc.):

- Detailed operating procedures must be prepared and followed. They include hold points to be checked.
- Appropriate resources must be provided and used.
- Standby workers support and warn the workers in the event something goes wrong.

- ▶ Do not start up or shut down equipment or installations without using the appropriate, written operating procedure.
- ▶ Workers must be encouraged to routinely report downgraded situations.
- ▶ Workers must be aware of and increase their vigilance in downgraded situations.
- ▶ Standby workers must support workers carrying out non-routine work.



TRAFFIC: Machinery/Vehicles/ Cyclists/Pedestrians



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- ▶ Do not exceed the speed limit.
- ▶ Buckle your seatbelt.
- ▶ Do not use cell phones while driving.
- ▶ Do not drive, cycle or walk outside the authorized paths.

Obey traffic regulations both on- and off-site.

Machinery and Vehicles

- Obey the speed limit and buckle your seatbelt.
- Make sure machinery and vehicles are suitable for the intended use, inspected and authorized for use.
- Drivers must have a valid license for the vehicle driven or machinery operated and the type of product transported.
- Do not use cell phones while driving.
- Do not transport passengers and goods in the same compartment.
- Take special precautions when driving conditions are hazardous.
- Pull over when you are tired.
- Special restrictions apply to access to and traffic in hazardous areas where a potentially explosive atmosphere may form.

Cyclists and Pedestrians

- Do not hurry when cycling or walking.
- Use the paths provided.



BODY MECHANICS AND TOOLS



Poor body mechanics when handling an object or using tools can result in injury.

The following precautions must be taken:

- Evaluate the work to be performed.
- Use appropriate mechanical, hydraulic, electrical and other equipment.
- If necessary, ask someone trained in body mechanics to assist you.

Be careful when using manual tools, especially:

- Valve wrenches.
- Impact wrenches.
- Saws and portable grinding machines.

- ▶ Do not carry out work if you do not have the right tools for the job and the environment.
- ▶ Two people or machinery may be needed to perform work, depending on the weight, size or bulk of the load.
- ▶ Adapt your body mechanics to the tool rating and repetitive motions.
- ▶ Follow the appropriate operating procedure for the tools.



PROTECTIVE EQUIPMENT



Collective protective equipment must be installed and maintained in good condition. It includes protective devices on dangerous machinery, gratings, safety rails, elevator and freight elevator safety devices, etc.

Wear personal protective equipment and do not rely solely on the collective preventive measures taken.

In installations, wear general personal protective equipment (PPE), such as:

- Coveralls.
- Safety shoes.
- A hard hat with whose useful life can be verified.
- Safety glasses.
- Hearing protection in specified areas.
- Safety gloves.

Wear task-specific PPE when required by work risk assessments. It includes:

- Self-contained breathing apparatus.
- Flame-resistant coveralls.
- Filter mask / hood / visor.
- Face shield or glasses.
- Device to detect the presence of toxic substances.
- Safety harness.

- ▶ Do not access installations or perform work without wearing general or task-specific PPE.
- ▶ The rules concerning PPE must be clearly defined and disseminated.
- ▶ Collective protective equipment must be in good condition, especially protective devices for machinery, gratings, and safety rails.
- ▶ Carefully inspect PPE.



WORK PERMITS



Work permits are critical to ensuring that work is performed safely:

- The person issuing the permit must check that the work and tasks are clearly described.
- Preparations must include a prior workplace visit.
- A risk assessment must be performed, addressing the operating procedure and the work environment.
- Where necessary, specific additional permits (hot works, lifting, lockout of powered systems, confined spaces, excavation, work at height, etc.) must be issued by a certified person before the work begins.
- The unit responsible for handover of the zone and the work equipment must check that all the permit conditions have been met before work begins and continue to be met throughout the duration of the work.
- The work process includes acceptance on completion of the work and handover of the equipment to the operators.

- ▶ Do not perform work without a valid work permit.
- ▶ Perform checks before work commences to make sure there is no live energy (mechanical, chemical, thermal, electrical, etc.).
- ▶ Monitor work whenever there is a risk of explosion or toxicity.
- ▶ A new permit must be issued if conditions or operating procedures change.



LIFTING

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Lifting operations using cranes, hoists or other mechanical devices can only be performed if:

- A risk assessment and a lifting plan have been prepared for the operation. The lifting equipment and method must be selected by a qualified person.
- The weight of the load is known and falls within the safe working load for the equipment to be used.
- The operators are fully trained and qualified. The cranes and other lifting equipment must be operated by certified workers.
- The lifting equipment's safety devices are in good working order.
- An identification system (color code or equivalent) is used to certify that the lifting accessories have been inspected at regular intervals.
- The lifting devices and accessories such as slings and shackles have been visually inspected before use.
- The lifting area has been marked out to prohibit access.
- The signaller is present.

- ▶ Do not walk or stand under a load while lifting is taking place.
- ▶ The lifting equipment and accessories must be inspected and in good working order.
- ▶ The load must be securely slung and properly bundled.
- ▶ The moving load must be controlled at all times.



WORK ON POWERED SYSTEMS



Some work can only be performed after lockout of the product or the energy (mechanical, electrical, hydraulic, thermal, radioactive).

Such work can only be performed if:

- An appropriate work permit is prepared and approved, complete with all the associated attachments.
- The energy is safely discharged or the equipment is purged and vented.
- The equipment operator and the person performing the work check physical isolation.
- A lockout-tagout system is used.
- The isolation and its effectiveness are regularly checked.
- The operator is present whenever a product system representing a risk for the people performing the work is opened.

- ▶ Do not perform work without checking that the power and product supply has been rendered inoperative.
- ▶ Lockout diagrams must comply with the risk assessment.
- ▶ Lockout-tagout devices must be in place and the lockout start and end times must be recorded.
- ▶ The operator must be present whenever a product system representing a risk for the people performing the work is opened.



CONFINED SPACES



You may only enter a confined space, such as a tank, pit or vessel, etc. if:

- All other options have been examined and discarded and there is sufficient reason to enter the confined space.
- An emergency response and rescue plan has been prepared and tested.
- All energy and fluid sources have been isolated and locked out and the isolation has been formally defined in a document.
- Atmospheric checks have been performed, verified and repeated as often as necessary. The results must be recorded.
- Unauthorized access has been prohibited.
- Specific rules are applied for special work in an inert atmosphere.
- A safety attendant (standby worker) is nearby to monitor the workers.
- A qualified, suitably equipped response team is standing by. Caution: More than 50% of fatal accidents in confined spaces involve responders who hold their breath.

- ▶ Do not enter a confined space until isolation has been verified and the atmosphere checked.
- ▶ A safety attendant (standby worker) must be nearby to monitor the workers.
- ▶ Suffocation, falls, explosion, crushing, drowning, and other risks must be addressed.
- ▶ An emergency evacuation plan must be prepared.



EXCAVATION WORK



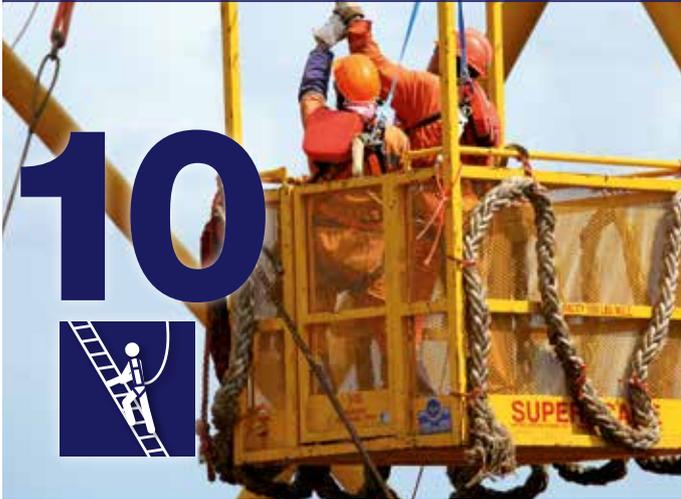
Manual or mechanical excavation, including river or marine dredging, may not begin until:

- An appropriate work permit is prepared and approved, complete with all the associated attachments.
- All underground hazards, such as pipes and cables, have been identified, located, marked on site and, where necessary, isolated. If isolation is not possible, additional precautions must be taken.
- The methods for preventing ground movement, such as trench walls collapsing, have been defined.
- The excavation work plans factor in the confined space aspect and related precautions are taken.
- Machinery is positioned at least one meter away from the excavation.

- ▶ Do not perform excavation work without a valid work permit comprising a map of all underground hazards.
- ▶ Take precautions to prevent ground movement. For example, machinery must be positioned at a set distance from the excavation and trench walls must be stabilized.
- ▶ Where necessary, take appropriate precautions for work in confined spaces.
- ▶ Stay alert while working to safeguard against unexpected hazards.



WORK AT HEIGHT



- ▶ Do not work at height without a safety harness when there is no collective protective equipment.
- ▶ Scaffolding must be appropriate to requirements and regularly inspected.
- ▶ Do not work on building or tank roofs without first checking their integrity and that the appropriate protective devices have been installed.
- ▶ Tools must be attached and stored in baskets.

Work at height (above two meters) is carried out from a fixed or mobile platform or from a scaffold with a safety rail designed for the task to be performed. Collective protective equipment is to be preferred. When there is none, use equipment that limits falls to no more than two meters, comprising a safety harness, an appropriate anchorage point and a shock absorption system.

- **Work on building or tank roof** requires prior inspection, a specific risk assessment, and installation of catwalks, safety rails or lifelines.
- **Work on scaffolding** requires inspection before use and at regular intervals during use. Tags must be used to keep track of inspections and regulate access. Employees erecting, modifying and dismantling scaffolding must be equipped with a double-lanyard harness.
- Only certified workers equipped with safety harnesses and respecting the specific conditions for use may **work on Mobile Elevating Work Platform (MEWP)**. The MEWP may not be moved with the outriggers deployed unless specifically authorized after a risk assessment.

Caution: ladders may only be used as a means of access under exceptional circumstances.



CHANGE MANAGEMENT



Technical and organizational changes must be covered by a risk assessment.

This is applicable to:

- Changes to equipment and to safety systems or devices on installations.
- Changes to planned operating conditions or safety parameters.
- Changes to procedures.
- Changes to the materials or substances used.
- Changes in personnel, especially safety-critical positions.
- Changes to the organization.

For each change:

- The mitigation measures identified by the risk assessment must be implemented.
- The plans and procedures must be updated accordingly.
- Workers must be given appropriate training.

- ▶ Do not make any technical or organizational changes without prior authorization.
- ▶ The risk assessment must be available and the identified mitigation measures must be implemented.
- ▶ Workers must be given appropriate training.
- ▶ Relevant documentation must be updated.



SIMULTANEOUS OPERATIONS OR CO-ACTIVITIES



Interference due to simultaneous operations or co-activities can increase the risk levels.

Simultaneous operations or co-activities entail:

- Having authorized representatives conduct a preliminary inspection of the installations.
- Performing a HAZOP study with supporting documents.
- Implementing all the recommendations resulting from the HAZOP study.
- Defining each person's role and designating the person in charge of safety, vested with the appropriate authority.
- Holding specific information, coordination and planning meetings.
- Regularly updating approved files.
- Obtaining formal authorization to proceed with the operations from the operations manager, who coordinates all the permits and instructions.

- ▶ **Do not perform any simultaneous operations or co-activities without a prior inspection.**
- ▶ **Everyone involved must know his or her role and the coordinator must be vested with the appropriate authority.**
- ▶ **Specific coordination meetings must be held regularly.**
- ▶ **Supervision must be increased.**



APPROPRIATE STEPS WILL BE TAKEN IN RESPONSE TO ANY BREACH OF THE RULES

Anyone:

- ▶ Flagrantly violating a safety rule,
- ▶ Working or driving under the influence of alcohol or drugs,
- ▶ Smoking outside designated areas,
- ▶ Refusing to obey an order in the event of imminent danger,

will immediately be removed from the work in progress and be subject to disciplinary action.

