



BYCN GUIDELINES

# LIFTING OPERATIONS

# Summary



## **1** Objectives and Scope

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## **2** Lines of Defence

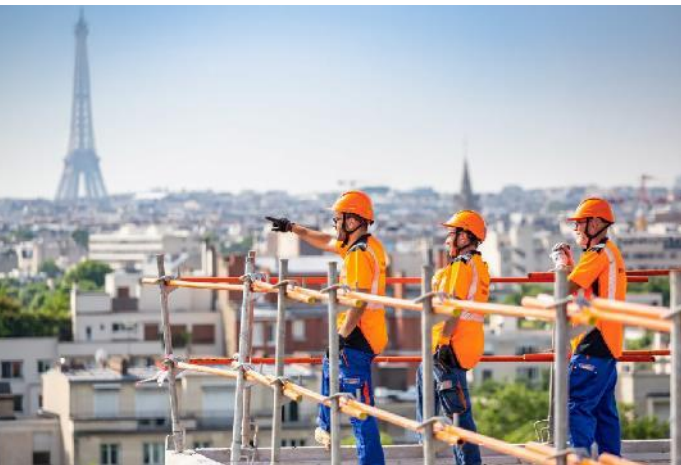
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## **3** Life Saving Rules

A background image showing a line of construction workers wearing orange hard hats and high-visibility safety vests. The workers are in profile, looking towards the right. The image is slightly blurred, with a white circular graphic element overlaid on the right side.

# 1

## Objectives and Scope



# Objectives

The objective of this document is to describe Bouygues Construction's requirements for **controlling risks related to lifting and mechanized handling activities.**

**It applies to all Bouygues Construction sites, irrespective of the party performing the work including:**

- Internal employees
- External partners
- Subcontractors.

In the context of JV projects, specific project procedures include at least the provisions described in this document, as well as the non-contradictory provisions of our partners. They are adopted prior to launching production.

**Lines of Defence and Life Saving Rules** mentioned in these guidelines are to be **part of Unique Operational Manuals** established by each BYCN Entity / Business Unit.

In instances where any part of this document conflicts with or is of a lower standard than local regulations, the more stringent local regulations will take precedence.

Each BYCN Entity / Business Unit **inform and train their personnel** on the content of their Unique Operational Manual to maintain a high standard of safety and operational efficiency.

# SCOPE



## INCLUDING



**Lifting operations** using lifting equipment as defined below

**Powered winches / hoists**

**Lifting accessories** and their rigging arrangements

## EXAMPLES

All types of cranes (tower crane, self-erecting tower crane, mobile crane, crawler crane, overhead travelling gantry crane), launching gantries or lifting frame, telescopic handler, forklift trucks, excavator equipped for lifting, lorry loader crane fitted to a lorry, vacuum lifting equipment, winches / hoists power driven (over 100 kg), lifting beam, lifting jacks.

*Non-exhaustive list*

## EXCLUDING



**"Manual handling"**, carrying loads without the aid of mechanical equipment.

**Manual handling slings and accessories.**

**Lifting concrete** using concrete pump.

**Lifting people at height using MEWPs**, elevated work platforms and construction hoists

# 2

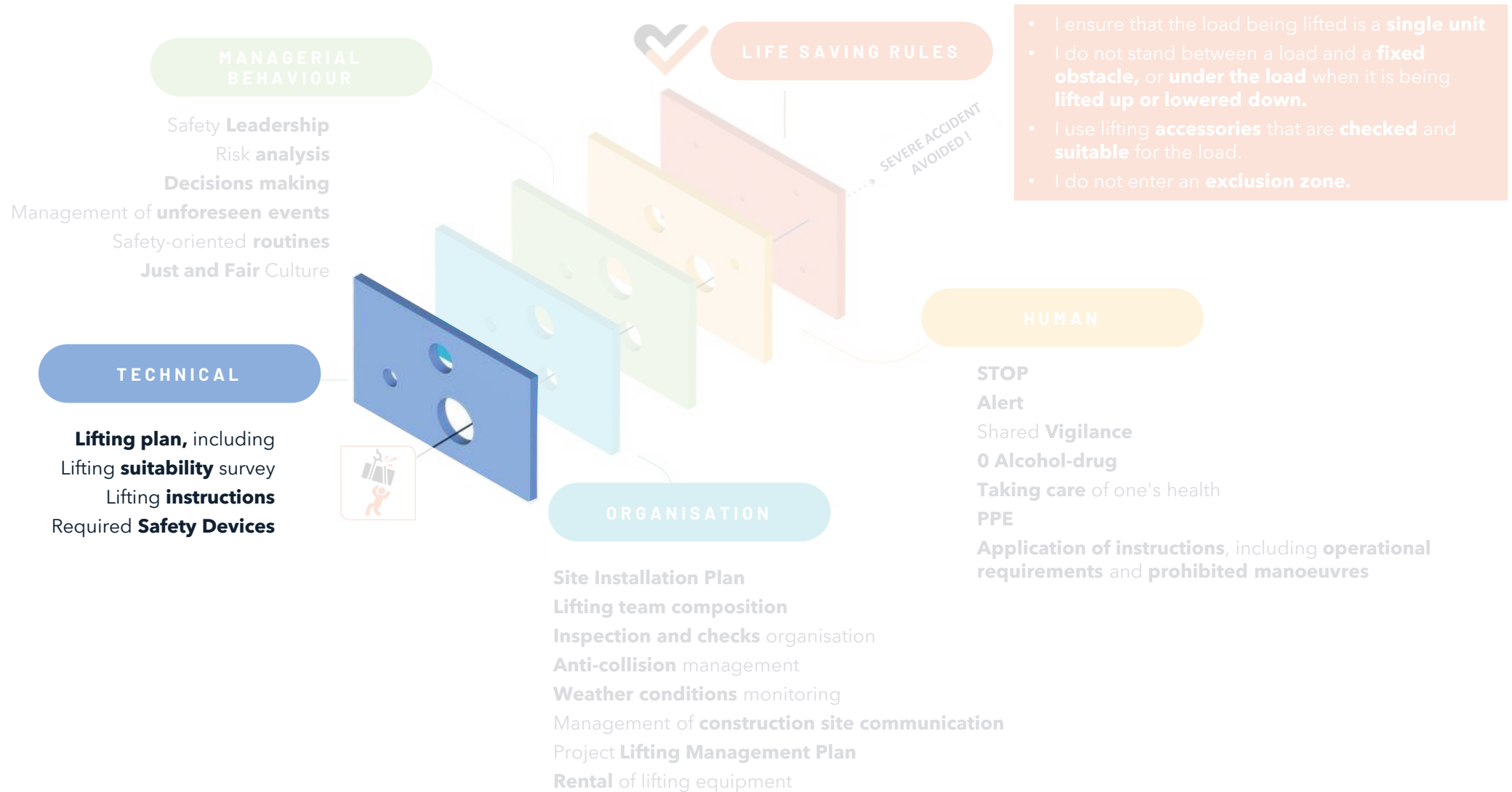
## Lines of Defence



# LINES OF DEFENCE LIFTING AND MECHANICAL HANDLING

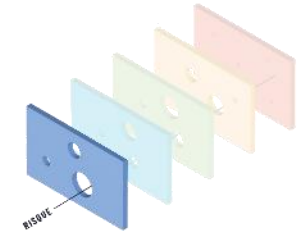


# LINES OF DEFENCE LIFTING AND MECHANICAL HANDLING



# LINES OF DEFENCE

## LIFTING AND MECHANICAL HANDLING



### TECHNICAL



### Lifting Plan

For any lifting equipment, a Lifting Plan is established and includes:

- **A Lifting Suitability Survey**

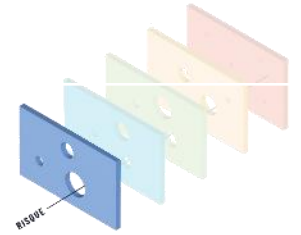
This survey ensures compatibility between the equipment and its intended use, considering the environment in which the equipment will be used and technical data provided by its manufacturer. It includes:

- Formal expression of the site's needs as to the intended use of the equipment, and to site-specific constraints such as utility lines, surrounding environment (incl. wind effect), soil type and load-bearing capacity.
- Formal validation of the lifting equipment by the supplier, as to the capacity of this equipment in meeting these needs, under these environments.
- Formal validation issued by the supplier that the equipment meets site requirements.
- Determination of the correct positioning and setup for the lifting equipment (with top and front views, and maximum rated capacity following the manufacturer's chart), including stability requirements (e.g., footings or foundations ).
- Siting locations for mobile lifting equipment in their respective anticipated working positions.

This survey is updated whenever there are significant changes in specifications (e.g., position or type of load).

# LINES OF DEFENCE

## LIFTING AND MECHANICAL HANDLING



### TECHNICAL



### Lifting Plan

For any lifting equipment, a Lifting Plan is established and includes:

- **Lifting Instructions for loads to be lifted**

For a load to be lifted and the associated lifting equipment, a Lifting Instruction describes:

- What is planned to be used for the lifting operation (including the slinging techniques, notion of "sling plan")
- Measures to be taken to ensure the lifting operation is carried out in a safe manner.

Routine Lifting Operations: simple instruction for each item or instruction formed by a list of items that includes for each: size, dimensions and weight; their packaging; the method of slinging (with the centre of gravity of the load, the positioning of lifting points, etc.); the lifting accessories required; the maximum wind speed.

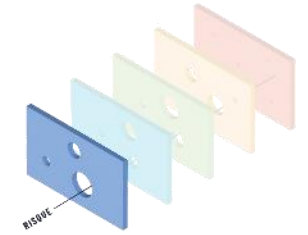
Complex or non-routines lifting operations: specific more detailed Lifting Instructions are required.

#### Complex or non-routine lifting operations (not limited to)

- When it comes to using a lifting equipment to handle a load for which the equipment was not originally intended for,
- When a lift by a mobile lifting equipment exceeds 90% of the maximum rated capacity for this equipment,
- Lifting of construction site machinery,
- Using multiple lifting equipment to lift the same load,
- Lifts requiring tilting the load and/or different lengths of slings,
- Helitransport,
- Parts of lifting operations where there is "no line of sight" or restriction of view, i.e. where the Lifting operator and Signallers stationed at lift-off and at point of arrival of load are not sufficient to see the entire load's travel path.

# LINES OF DEFENCE

## LIFTING AND MECHANICAL HANDLING



### TECHNICAL



#### Lifting Plan

For any lifting equipment, a Lifting Plan is established and includes:

- **Method of coordination and communication means** between authorized and assigned individuals (Appointed Person, Supervisors, Operators, Signallers, Slingers, etc.) for the lifting equipment
- **Instruction or user manuals**
- **Certification of conformities** with applicable regulations.
- **Record and follow-up of Periodic General Inspection (PGI)**
- **A maintenance log**, where any maintenance or intervention is recorded, as scheduled by the manufacturer.



#### Required Safety Devices

- Lifting equipment have manufacturer-supplied safety devices to address risks like overloading, overturning, etc.
- These devices meet local regulatory requirements and industry standards,
- Equipment that is particularly sensitive to wind (eg tower cranes, mobile cranes, launching gantries) are fitted with anemometers.

# LINES OF DEFENCE LIFTING AND MECHANICAL HANDLING

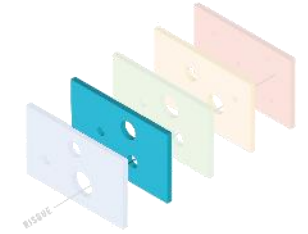


# LINES OF DEFENCE LIFTING AND MECHANICAL HANDLING



# LINES OF DEFENCE

## LIFTING AND MECHANICAL HANDLING



### ORGANISATION



#### Site Installation Plan

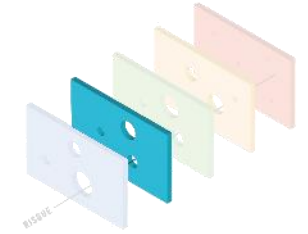
The following points are specified on the Site Installation Plan when lifting equipment is used on the project:

- Loading and off-loading areas
- Identification and organisation of storage areas
- Site access and traffic routes
- Access routes to lifting equipment
- Coverage area of each lifting equipment
- Any prohibited areas for lifting loads



# LINES OF DEFENCE

## LIFTING AND MECHANICAL HANDLING

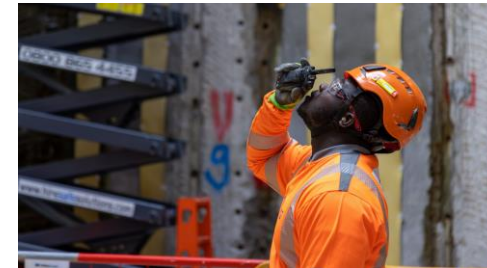
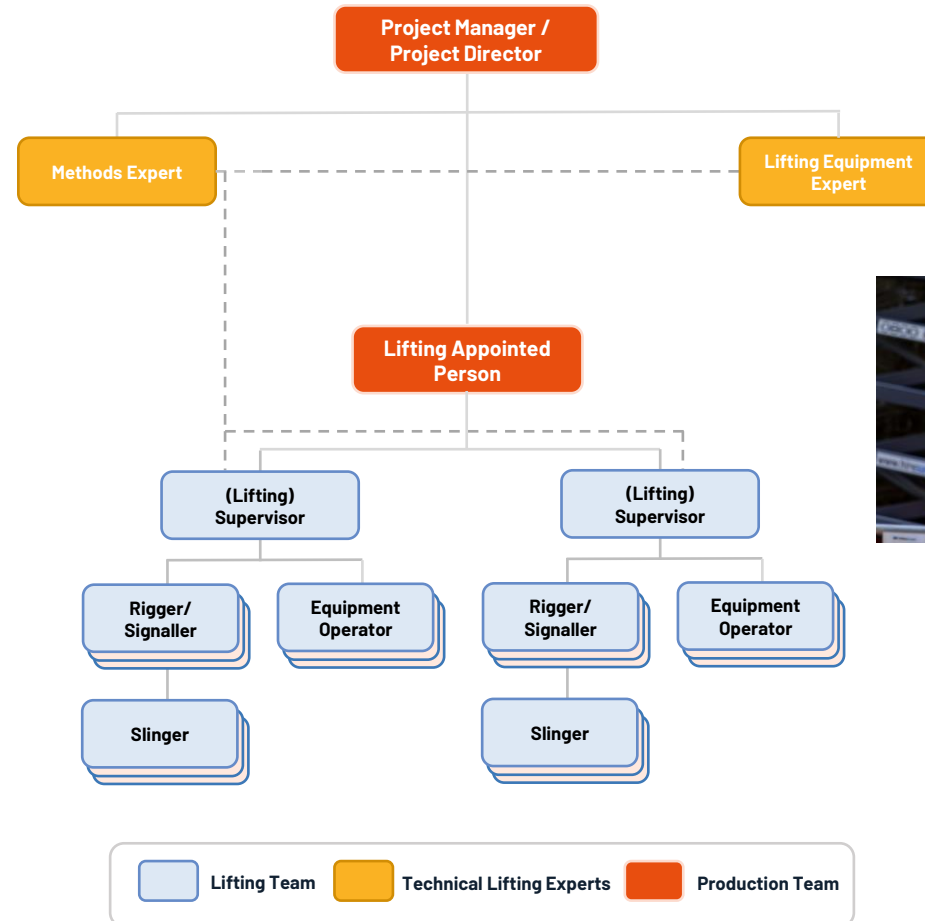


### ORGANISATION

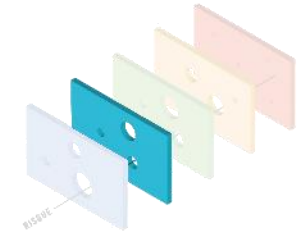


### Lifting Team Composition

- Such a typical hierarchy of Management is in place as for lifting →
- All members of the lifting team have received specific training, including both theoretical learning and practical exercises, enabling them to be fully familiar with their role.
- Their theoretical and practical competence are assessed regularly.
- Each person involved in lifting operations has specific duties and responsibilities, which must be clearly communicated to them to ensure everyone understands their role.



# LINES OF DEFENCE LIFTING AND MECHANICAL HANDLING



## ORGANISATION



### Lifting Team Composition

## Meet your team



#### **My name is Juan, and I am the Lifting Equipment Expert**

I participate in lift suitability survey ensuring that the expression of needs is consistent with the site constraints and with the technical characteristics of the lifting equipment. I ensure regulatory compliance through surveys, record inspections, and verify that a maintenance strategy is in place.



#### **Meet James, the Methods Expert**

I participate in lift suitability surveys and I define the type and location required for the equipment, in accordance with expected production needs. I also prepare any specific lifting instructions, in collaboration with the Lifting Supervisor.



#### **Hi, I'm Leong, the Lifting Supervisor**

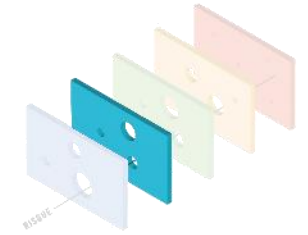
I participate in drawing up the Lifting Plans, validate them and ensure they are implemented accordingly. If necessary, I initiate lifting plans revisions. I designate signallers and provides them with the applicable standard and specific lifting instructions.



#### **I am Marie and I lead the project with my team**

I oversee the overall project and receive reports and updates from key team members. I ensure that lifting operations align with project objectives and comply with safety standards.

# LINES OF DEFENCE LIFTING AND MECHANICAL HANDLING



## ORGANISATION



### Lifting Team Composition

## Meet your team



#### **Hola, I am Carlos, the Appointed Person**

Formally appointed by and reporting to the Project Manager, I issue the Lifting Management Plan for the project, and I review Lifting Plans for the various equipment on site and approve their compliance with the Project Lifting Management Plan and applicable rules. Additionally, I appoint other lifting team members.



#### **This is Antoinette, a qualified Crane Operator**

Her duty is to operate, inspect and maintain the equipment according to the lifting plan and the manufacturer's guidelines so that everyone goes home safe. Antoinette reports any defects immediately to her line manager.



#### **Say hello to Claudia, the Signaller**

She supervises each lifting operation according to provided instructions. She controls the slinging operations, and she alone transmits instructions to lifting operators and assists them in the various manoeuvres through clear communication. She is always present during loads lifting and lowering and wears distinctive clothing for identification.

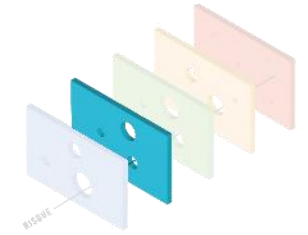


#### **Hello, I am Ali Ghulam, and I am a slinger**

I am responsible for applying slinging techniques for which I have been trained.

# LINES OF DEFENCE

## LIFTING AND MECHANICAL HANDLING



### ORGANISATION



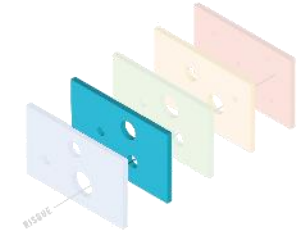
#### Inspection and checks organisation

- **Periodic General Inspection (PGI)**
  - All lifting equipment used is subject to a Periodic General Inspection (PGI) at least every 12 months, and every 6 months for mobile lifting machinery (mobile cranes, telehandlers, loader cranes, etc.).
  - These inspections are carried out by independent competent persons. Issues raised during these inspections are addressed or remedied following the requirements set out in the report.
- **Equipment inspections, in addition to PGI and maintenance regime:**
  - Assembled / erected lifting equipment and associated safety systems are inspected before first use by a competent person or an outside organization, in accordance with the procedures defined by the applicable local regulations.
  - When third-parties are involved, they are certified against ISO 17020 and accredited by an Accreditation Organism member of (either):
    - International Laboratory Accreditation Cooperation (ILAC)
    - International Accreditation Forum (IAF)
    - European cooperation for Accreditation (EA).
  - Mobile lifting equipment are quarantined before entering the site until they are inspected to ensure their conformity with specifications set out in its Lifting Plan, including the absence of any unresolved remarks in the latest General Periodic Inspection report. A distinctive sign is then affixed to the lifting equipment authorising it to enter the construction site, should it be for more than a month.



# LINES OF DEFENCE

## LIFTING AND MECHANICAL HANDLING



### ORGANISATION



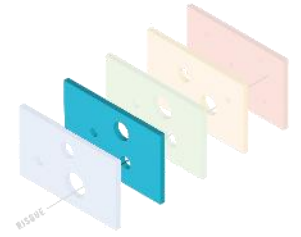
### Anti-collision management



- When two or more lifting equipment or machinery are operating in an overlapping zone, an anti-collision management system is implemented, or organizational measures are applied, to prevent any risk of collision.
- These systems are regularly reviewed and procedures put in place that deal with potential system failures.
- Any deactivation of safety systems such as anti-collision and zoning can only be taken by a competent person designated in advance by the Lifting Appointed person and the Operation Manager: this person organises a hold point to provide clear instructions to Lifting Operators and Signallers before the start of any lifting manoeuvre. He then supervises the lifting operation until the safety system is switched on again.
- All deactivations or malfunctions are recorded and communicated to senior management.



# LINES OF DEFENCE LIFTING AND MECHANICAL HANDLING



## ORGANISATION



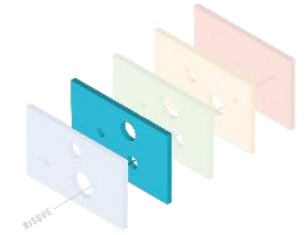
### Weather conditions monitoring

- A rigorous process of weather conditions monitoring is implemented on the project.
- Reliable forecasting stations or web-based services provide the project with information regularly updated and alerts if weather conditions are expected to deteriorate. Lifting operations are planned and adapted accordingly.
- These forecasts are communicated to the lifting team through morning briefings with regular updates following throughout the shift.



# LINES OF DEFENCE

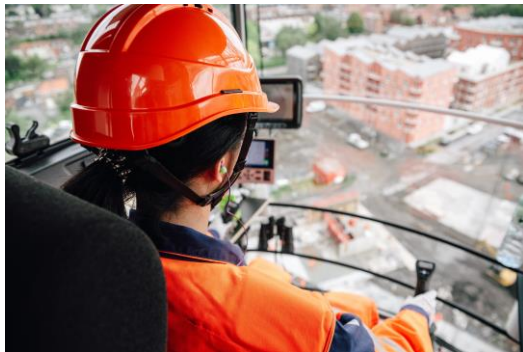
## LIFTING AND MECHANICAL HANDLING



### ORGANISATION



#### Management of construction site communication



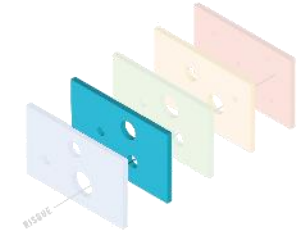
- Communication between Lifting operators and Signallers is oral, distinct and audible.
- For this purpose, radios are provided to Signallers and Lifting operators: they communicate between themselves on frequencies dedicated to each of the lifting equipment.

- Tower crane operators have hands-free control.
- Signallers and Lifting operators are familiar with the standard command signals, serving as a fallback in the event of a degraded radio communication.



# LINES OF DEFENCE

## LIFTING AND MECHANICAL HANDLING



### ORGANISATION



#### Project Lifting Management Plan

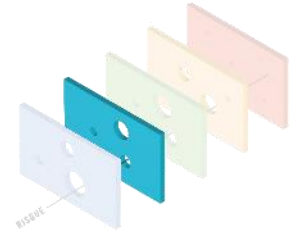
- The Project Lifting Management Plan applies to all construction sites and organizational structures associated with the project:
  - For projects with only a single piece of lifting equipment or machinery in operation, the Lifting Plan for that specific equipment can serve as the Project Lifting Management Plan.
  - For consortium construction sites, the plan is prepared by the Authorized Representative, or the entity awarded the project coordination package.
- **The Project Lifting Management Plan is issued and communicated to all relevant parties** including service providers and subcontractors when they must comply with it or when they must develop consistently their own Lifting plans.



- This document sets out:
  - The organizational lifting requirements, considering these guidelines and specific key risks related to the project.
  - The organization, roles, responsibilities, trainings, competencies and authorizations of the various individuals within the project (e.g., Lifting Appointed Person, Supervisors, Signallers, Slings, etc.).
  - The process for preparing and implementing lifting plans including verification of lifting equipment and preparation of lifting instructions.
  - Inspection and checks organisation.
  - Measures and arrangements for controlling risks that are common to all equipment and machinery on the project, and especially:
    - Anti-collision management,
    - Weather conditions monitoring,
    - Management of construction site communication.

# LINES OF DEFENCE

## LIFTING AND MECHANICAL HANDLING



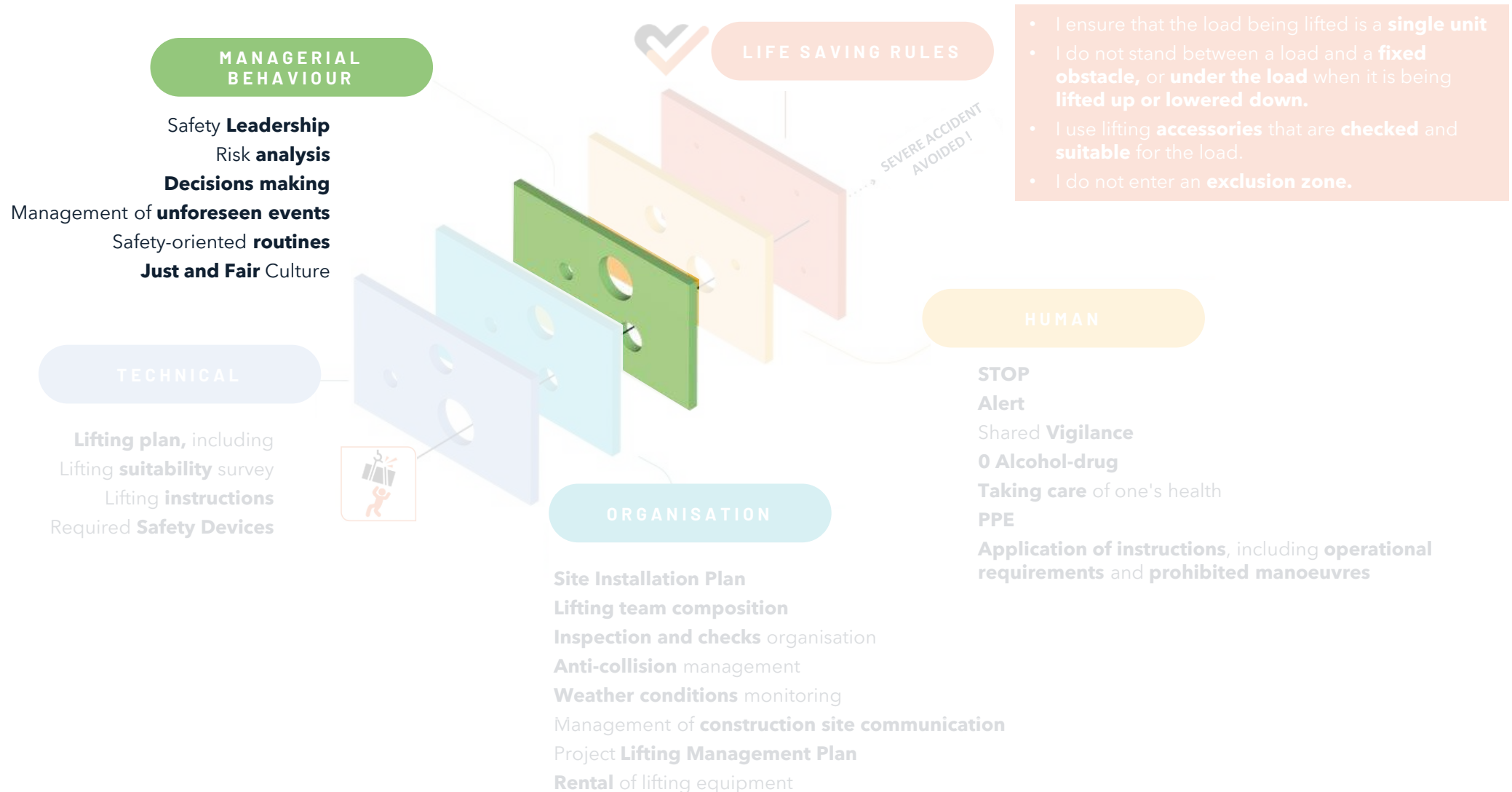
### ORGANISATION



#### Rental of lifting equipment

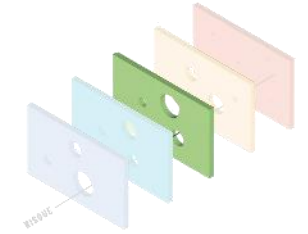
- Renting of lifting equipment by one company to another is governed by a **rental agreement**, which sets out the conditions and responsibilities associated with the loan of this equipment.
- The lift suitability survey **considers the needs of the user company**.

# LINES OF DEFENCE LIFTING AND MECHANICAL HANDLING



# LINES OF DEFENCE

## LIFTING AND MECHANICAL HANDLING



### MANAGERIAL BEHAVIOUR



#### Safety Leadership

- Works Managers, Supervisors and Managers **carry out visits as Safety Leaders**
  - Focusing on Major Risks,
  - Engaging with people,
  - Saying STOP in the case of deviations,
  - Applying the Five Stars method.
- All managers and stakeholders on the and visiting the site **respect and apply the organizational rules.**

**ENG**

**fivestars**  
safety intervention tool

**REINFORCING SAFE BEHAVIOUR**

**Start intervention**  
 ★ Intervene **calmly** and **firmly** | Hello, (Mark) I was on my way to...  
 ★ Open conversation

---

**Target the act**  
 ★ Describe what you see | I notice you are (wearing)...  
 | I see the area is (tidy)...

---

**Agree approved methods**  
 ★ Confirm approved methods | (Wearing)...is exactly what is required

---

**Reinforce safe behaviour**  
 ★ Show why this behaviour is positive | You're setting an excellent  
 example to the new members...

---

**Self-impact**  
 ★ Ask what are the positive consequences for them personally | What's the benefit for you...  
 ★ Give an example | Yesterday I heard a case of  
 someone who didn't (wear)...and he...

Every situation is different, Every person is different,  
 Adapt to the situation and the individual.  
 © LHS Foundation

**ENG**

**fivestars**  
safety intervention tool

**DEALING WITH AN UNSAFE ACT**

**Start intervention**  
 ★ Intervene **calmly** and **firmly** | Hello, (Mark) I was on my way to...  
 ★ Open conversation

---

**Target the act (not the person)**  
 ★ Describe what you see avoiding judgement of the person | I notice you are not (wearing)...  
 | I see the area is (untidy)...

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**Agree approved methods**  
 ★ Ask the person to describe how the task should be done safely | What is the procedure for...?  
 ★ Inform them of approved methods | As you know,...are required...

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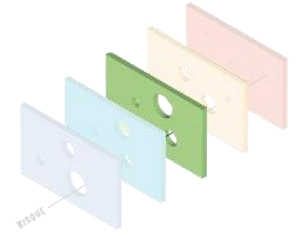
**Reason behind unsafe behaviour**  
 ★ Get them to explain why they were acting in this way | Why are you (not wearing)...?  
 ★ Listen and show you have understood | I see, if I understand you...  
 ★ Ask them to identify solution | What can be done to (resolve)...?

---

**Self-impact**  
 ★ Ask how the negative consequences of this behaviour can impact on them | What could happen if you don't (wear)...?  
 ★ Give an example | And how would that impact on (your family)...?  
 | For example, I saw a safety alert that...

Every situation is different, Every person is different,  
 Adapt to the situation and the individual.

# LINES OF DEFENCE LIFTING AND MECHANICAL HANDLING



## MANAGERIAL BEHAVIOUR



### Risk analysis

- Project Managers ensure that:
  - Lifting Management Plans
  - Lifting Plans
  - Site Installation Plansare designed and updated taking into consideration risks analysis.



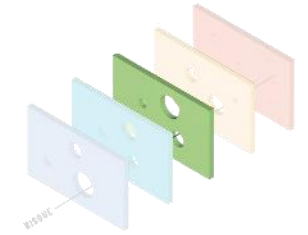
### Decision making

- Project managers make decisions taking into consideration potential impacts on:
  - Ability for installed lifting equipment to continue to be used in accordance with its initial lift suitability survey
  - Instructions given to lifting team personnel
  - Risks of collision between lifting equipment operating in the same area

They put in place mitigation measures accordingly.

# LINES OF DEFENCE

## LIFTING AND MECHANICAL HANDLING



### MANAGERIAL BEHAVIOUR



#### Management of unforeseen events

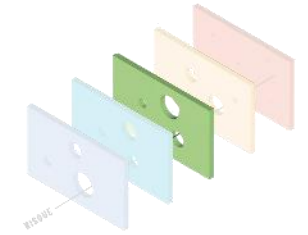
Project managers create favourable conditions for the safe management of unforeseen events, by:

- Identifying these situations (change of equipment, teams, weather conditions, breakdowns, etc.) and training their teams to identify them,
- Encouraging team members to bring these situations to their attention,
- Stopping activities for the necessary time to define ways to resume work safely,
- Creating an environment that stimulates questioning and collective thinking,
- Collectively analysing the situation safety wise, relying on support services and/or their hierarchy, if necessary,
- Prioritizing safety in decision-making,
- Communicating the chosen solution to their teams and any additional measures put in place,
- Sharing the encountered situations and decisions made to improve the company's processes, if applicable.



# LINES OF DEFENCE

## LIFTING AND MECHANICAL HANDLING



### MANAGERIAL BEHAVIOUR



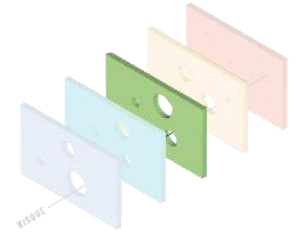
#### Safety-oriented routines

- Every management meeting starts with a safety focus
- Before starting work, the team leader organizes the daily warm-up
- Briefing/debriefing:
  - Before starting work, the team leader gathers the team (including temporary workers) for a short debriefing/briefing. He questions and reviews the activities of the previous day.
  - They review the tasks to be performed, including potential risks protection measures in place. The leader ensures that everyone understands their role and responsibilities and has the necessary means to work safely.
  - A briefing is also conducted in case of simultaneous activities, including with subcontractors.
- Tool-box meetings are regularly held for Bouygues Construction employees, temporary workers and subcontractors, to share information, encourage feedback, raise awareness about specific risks, and react to situations observed on the site.



# LINES OF DEFENCE

## LIFTING AND MECHANICAL HANDLING



### MANAGERIAL BEHAVIOUR



#### Just and Fair culture

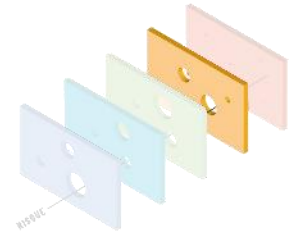
- Project managers apply the Just and Fair referential that has been approved within their perimeter as close as possible to the action (safety visit, incident investigation..):
  - Recognizing expected behaviours
  - Sanctioning unacceptable behaviours
- The reporting of near misses is valued.
- More moderate managerial reactions are issued when investigations following spontaneous near-miss reports highlight unacceptable behaviours, in order to encourage transparency.

# LINES OF DEFENCE LIFTING AND MECHANICAL HANDLING



# LINES OF DEFENCE

## LIFTING AND MECHANICAL HANDLING



### HUMAN



#### Stop - Alert

- In a situation that would put themselves or others in danger, **it is everyone's duty to say "STOP" and to ALERT** their management to find a solution to resume activity safely.
- **Everyone respond positively to an alert** that is reported to them.

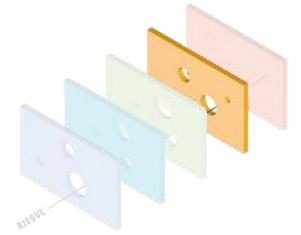


#### Shared vigilance

- **Each person acts as a protective factor for their colleague or for the person working around them** by staying attentive and vigilant:
  - towards younger employees and temporary workers who are new to our company,
  - towards a colleague who is less alert or distracted,
  - and by intervening with this person or their management in case of risk.
- **360° or Take 5:** before starting or resuming a task everyone carry out a brief analysis of the working conditions around them, a 360° check, to ensure that no risks are present, that the equipment is adequate, and that they are equipped with the proper PPE to work safely.

# LINES OF DEFENCE

## LIFTING AND MECHANICAL HANDLING



### HUMAN

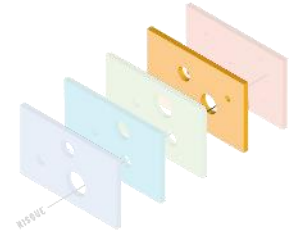


#### 0 alcohol - drug

- **Possession** or **distribution** of drugs or alcohol at work or being under the influence of drugs or alcohol at work is prohibited.
- **Any employee who has any issue with drug or alcohol dependence** is encouraged, at any time, to request support to break the dependence. This support is paid for by the company, without prejudice to the remuneration or career of the employee concerned.
- **Each new temporary worker is tested** on the first day before starting their job.
- **Crane operators and machine drivers are tested** on the first day on site before starting their job, and then quarterly.
- A **random testing campaign** is organized on each project, covering all types of personnel at the workplace.
- **Any employee, subcontractor, temporary worker, on site or in offices can be tested** as part of this campaign, as well as in cases of suspicion or following an incident.
- **Penalties** may be applied to labour agencies and subcontractors whose employees test positive.
- **This constitutes a minimal standard:** the frequency of tests may be increased based on the results of previous tests.

# LINES OF DEFENCE

## LIFTING AND MECHANICAL HANDLING



### HUMAN



#### Taking care of one's health

- Adopt **wise principles** with regards to your sleep, diet, and lifestyle.
- **Attend warmup sessions** before starting work.
- **Never lift alone** manually any load weighing more than 25kg.
- Before handling, **make sure that the path is free** from obstacles.
- **Always ensure that proper manual lifting practices** are applied to protect from back injuries.
- **Properly set up your workstation**, seeking advice from ergonomists, doctors, or safety advisors if necessary.
- Every lifting equipment operator are subject **to a medical examination** certifying their ability to operate lifting equipment.
- Lifting equipment operators do **not operate under the influence of medications** that could cause them to fall asleep. They alert their superiors if necessary.

# LINES OF DEFENCE

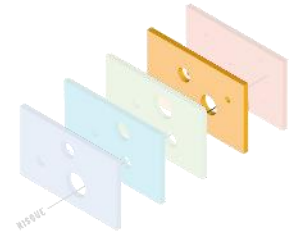
## LIFTING AND MECHANICAL HANDLING

### HUMAN



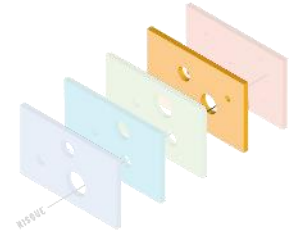
#### PPE

- **No one access a construction site without wearing the following standard PPE:**
  - Safety helmet with chin strap ,
  - Safety spectacles,
  - Safety gloves,
  - Safety boots,
  - High visibility clothing.
- **Always carry hearing protections.**
- **Wearing hearing protection is mandatory** when noise intensity in the environment exceeds 80 dB(A): at a minimum, but not limited to, during hammering work, concrete vibrating, demolition, pumping, injection, and near construction equipment, machines, or power tools.
- **On operated sites** (e.g. premises operated by customers such as plant, factory, buildings under Facility Management contract, apartments occupied by inhabitants, etc), the PPE requirements are adapted to the site and to the risk assessment.
- **The standard PPE is to be complemented by specific PPE** adapted to the nature of the tasks, depending on the results of the risk assessment.
- **Lifting signallers are visually identified** by wearing distinct PPE color (e.g., band on the helmet, differentiating HV vest, etc.)



# LINES OF DEFENCE

## LIFTING AND MECHANICAL HANDLING



### HUMAN



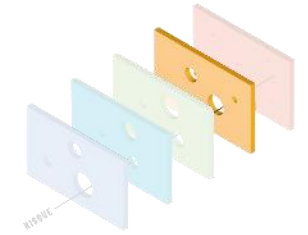
#### Application of instructions

General instructions:

- **Operators of lifting equipment respect instructions** given as part of the training and certification they have been delivered with.
- Any handling or **use of telephone or radio equipment is prohibited while operating.**
- Each lifting operator inspects and controls his machine **before starting his shift.**

# LINES OF DEFENCE

## LIFTING AND MECHANICAL HANDLING



### HUMAN



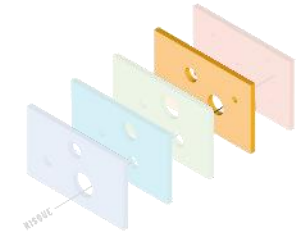
#### Application of instructions

Operational requirement:

- **Before lifting** operations commence:
  - **A lifting plan must be validated** by the Lifting Appointed person before any lifting operation.
- **Before authorising any lifting**, the Signaller ensures that:
  - **Loads are properly secured or in one piece**, otherwise they are placed in a 5-sided container or basket, preventing the elements from falling off during the lifting operation,
  - The **load has been correctly slung** and that **lifting accessories used, and the load have been visually inspected** to verify their condition as good,
  - **The receiving or landing areas are cleared**, and adequate blocking or stabilizers are in place,
  - There is **sufficient clearance around the lift area** so as not to risk collision, destabilizing nearby equipment, entanglement,
  - The Slinger has **safe access to sling points** for attaching and releasing the load,
  - **Weather conditions align with the provisions set out** in the Lifting Plan and that **wind speeds are ok for the load to be lifted**.

# LINES OF DEFENCE

## LIFTING AND MECHANICAL HANDLING



### HUMAN



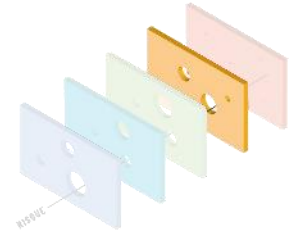
#### Application of instructions

Operational requirement:

- **During lifting:**
  - **Only the Signaller has the authority** to allow the slinging or unslinging of a load, and to transmit instructions to the operator of the lifting equipment,
  - **The Signaller ensures that no unauthorized personnel interferes with the load** during lifting and landing and that only guide ropes or push-pull sticks are used to control the descent and landing. **He keeps himself clear** of the suspended load,
  - **When the Lifting operator has no direct line of sight of part of the load's travel path**, the Signaller(s) provides him with any information necessary to enable him to perform the manoeuvre safely throughout the load's travel corridors,
  - The Signaller ensures that **the load is secure, stable and would not collapse or loose shape** once the weight has been released from the equipment,
  - The releasing of the weight and slackening of the slings and chains are **done in incremental steps**.

# LINES OF DEFENCE

## LIFTING AND MECHANICAL HANDLING



### HUMAN



#### Application of instructions

Prohibited manoeuvres:

- The lifting of **loose loads** or **loads not tied together**.
- The lifting of loads that involves any **side pulling or lateral forces**.
- The lifting of loads that are **not free of the ground or still anchored**.
- The tying of any accessories together in ways not approved by the manufacturer.
- The tying of any guide ropes to body parts, hand, arm, etc.
- The **lifting of people**, except in the case of evacuation using an accessory designed for this purpose (rescue evacuation cage, platform etc..).
- The **disabling or bypassing** of any safety device.

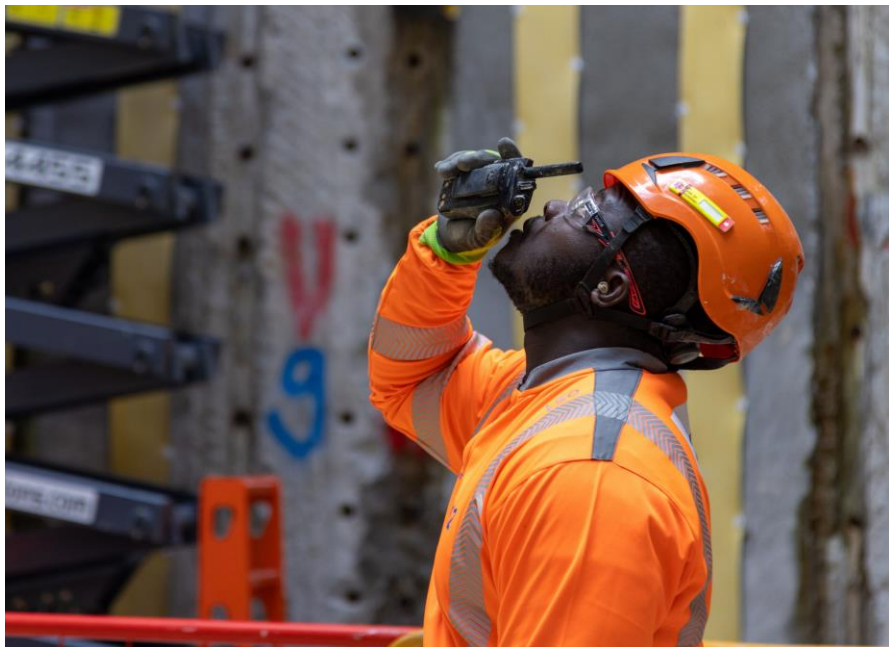
# 3

## Life Saving Rules



# LIFE SAVING RULES

## LIFTING AND MECHANICAL HANDLING



### RISK LIFTING

- ✔ I ensure that the load being lifted is a **single unit**
- ✔ I do not stand between a load and a **fixed obstacle**, or **under the load** when it is being **lifted up or lowered down**
- ✔ I use lifting **accessories** that are **checked** and **suitable** for the load
- ✔ I do not enter an **exclusion zone**

IN CASE IT IS IMPOSSIBLE TO RESPECT ONE OF THESE RULES, I « STOP » AND ALERT MY HIERARCHY

Direction  
Santé Sécurité Sûreté  
DE BOUYGUES CONSTRUCTION

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