

**An accident is never due to fate.
All accidents are avoidable.**

With these two convictions in mind and since its creation, we support a common approach to rigorously secure on the Eramet group scale our “critical activities”: defined as recurring high risk activities, they expose our workers, internal or contracted, to deadly dangers when not properly under control.

At the heart of this initiative are the advice of operational managers and safety specialists who together, shared and pooled their knowledge and experience of real workshop life.

They identified the common critical activities for the Group and formalised the “Essential Requirements” for each of them. The strict compliance to these requirements by each and every one of us is crucial to control the related high potential risks.

Today, this work has been put together under these Standards, the foundation for our safety culture. They must be communicated, shared, accepted, and above all, complied to, by everyone across the entire Group.

I would like to pay tribute to this work. It is a bold act in pursuit of the only acceptable target for safety: ZERO harm.

From now on, we are committed to working tirelessly so that the implementation and full compliance to these standards becomes a reflex for us all, rooted in our corporate culture.

The Group Safety
& Prevention Department

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INTRODUCTION

Each day we are all faced with risks associated with the activities we do. These may be our own activities (DIY at home, sport with friends, or driving to a holiday destination), or those in our professional life.

As an employer, Eramet undertakes to ensure the safety of its employees and all those working at its sites. Aware of the specific risks associated with our operations, and in order to understand them properly, we classify them into 3 main groups:

- **technological risks:** associated with our processes and industrial plants, these may have disastrous consequences, but are fortunately the least common,
- **risks associated with not standardized activities:** associated with the most “mundane” activities in our plants (climbing the stairs, using a hammer, picking something up, etc.), these are the most likely causes of accidents, but their consequences are fortunately normally very minor,
- **risks associated with critical activities:** some recurrent professional activities of the Group expose workers to potentially fatal hazards, so it is vital to control these operations completely in order to avoid accidents and injuries.

In order to eliminate the most serious injuries (over 90% of severe accidents within the Group involve critical operations), Eramet is committed to a preventative process, deploying its **Essential Safety Requirements**. These requirements cover the critical operations carried out across the Group. For each operation, they provide the prevention principles as a series of obligatory conditions, which are a series of Essential Requirements defining the minimum precautions to be taken, independent of regulatory obligations.

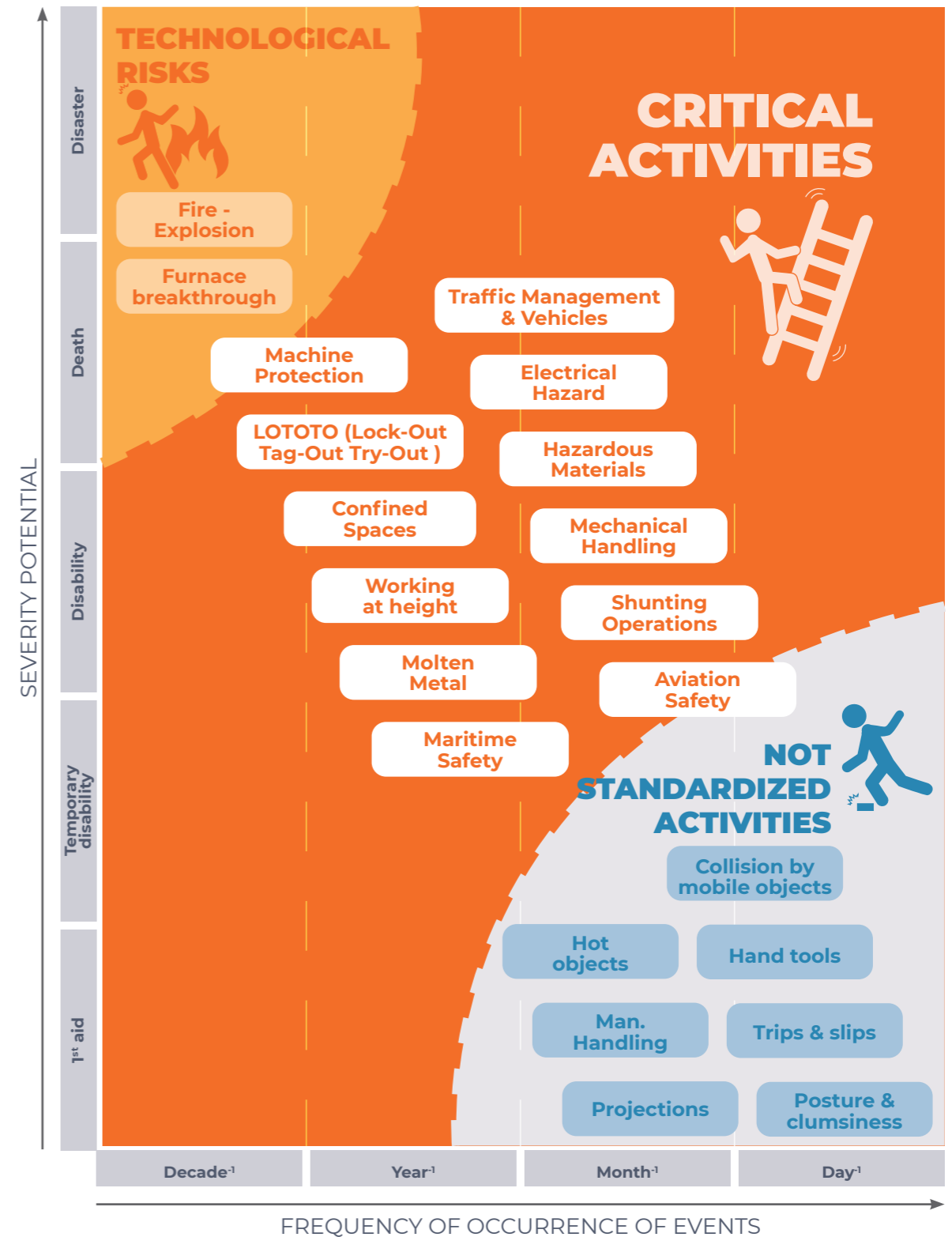
This document forms the Eramet Group’s Reference Base for these Essential Safety Requirements. Everyone must learn to respect these automatically! For each critical activity, the Essential Requirements are arranged in two formats:

- 1) **The strict requirements themselves,** as they must be implemented by the management and as they will be audited. This working tool for all safety professionals within the Group complements the CCV (critical control verification), visual standards, etc.
- 2) **Life-Saving Behaviours:** A part of the Essential Requirements that everyone needs to know and master on our Group’s sites. They are to be shared with employees and contractors during Group and local training sessions, communication campaigns, etc.

They will be rolled out through line management (from the site director to the supervisor), but each person must know and apply them.

**The Essential Safety Requirements protect our lives,
let’s put them into practice!**

RISKS SCHEMA



GLOSSARY

AUTHORISATION TO WORK

Written document which certifies that the operator of a plant has given permission to a worker (internal or external) to work on this plant. Not to be confused with the work permit, of which the authorisation is only one part.

CRITICAL LIFTING

A lifting operation is critical if it:

- requires more than one item of handling equipment, working together,
- requires the load to pass above critical installations or equipment (piping rack, electrical cable, staff premises, etc.),
- requires the lifting equipment to operate at 95% of its WLL.

MEDICAL DEPARTMENT

Group of medical staff (doctor, occupational nurse, etc.) undertaking the medical care of employees on behalf of the employer.

RISK ANALYSIS/RISK ASSESSMENT

Formal risk assessment process for a particular operation, enabling suggestions and choice of risk control measures to be applied to make the operation safe.

RISK REGISTER

The register of risks contains all the physical injury risks for a given site. It is merged with the Occupational Risk Assessment or Single Document in France.

SPOTTER

Person assigned exclusively to monitor a risky operation. In the event of an injury, the spotter must sound the alarm, then, depending on the available skills and resources, provide first aid to the victim(s).

TRAIN SHUNTING AGENT

Person on the ground in charge of switching rail path or guiding the train driver during maneuvers.

WORK PERMIT

Works planning and monitoring process, punctuated by:

- validation of the risk assessment plan for the work, provided by the order originator based on the formal risk analysis (confirmed by the work permit signature),
- the work authorisation, validated by the operator before the task, and renewed for each shift change,
- work completion, allowing the plant to return to service,
- final acceptance of the works, validated by the order originator.

LIFE-SAVING BEHAVIOURS

- **I only work** on activities that I am trained and qualified for.
- **I am fit** for work and **never work** under the influence of alcohol or drugs.
- **I use** the full set of PPE which is required for my task.
- **I ensure** that there is a risk analysis before I perform a critical activity.
- **I never start** an activity without completing my Take 5.
- **I only enter** hazard zones if I'm authorized to do so.
- **I stop work or intervene** if I observe a life-threatening condition or act.
- In case of injury, **I seek** immediate help and **report** to my manager as soon as I can.
- **I never alter or modify** any safety device (guards, emergency stops, etc.).
- **I do not use** a cell phone while driving or doing any other risky activity.
- **I never work** on critical activities in adverse weather conditions (high wind, heavy rains, etc.)



TRAFFIC MANAGEMENT AND VEHICLES

These requirements apply to all activities involving light vehicles (LV), heavy vehicles (HV), and their interaction with pedestrians within all operational perimeters: mine roads, industrial zones, processing plants, port. The objective is to prevent fatal and severe incidents related to vehicle-vehicle and vehicle-pedestrian interactions. Driving vehicles on public road safety requirements are covered in separate Group road safety standard.

	Topic	Requirement
EMPLOYEES	Training & competence	<p>Drivers must be fit for driving (medical certificate), have a valid driving license and an authorization to drive validated by the site manager or representative:</p> <ul style="list-style-type: none"> • All employees, contractors, and visitors prior to site access must receive training/induction on site Traffic Management Plan (TMP). • Specific practical training must be completed for high-risk tasks such as pit operations, haulage-road driving, emergency operations, etc.
	Prevention measures	<p>New road design is compliant with Group standard "Safe Haulage roads". A Traffic Management Plan (TMP) is up to date and respected.</p>
MANAGEMENT	Implementation conditions	<p>Ensure safe driving behaviours:</p> <ul style="list-style-type: none"> • Fatigue detection tests (e.g. OSPAT) performed before driving HV. • Driving must not exceed 13hours/day and regular breaks are taken. • Use of seat belts by all occupants. • Usage of mobile phones, even with hand-free kits, as well as smoking, eating, or drinking while driving is strictly prohibited. • Lighting and flashing beacons activated while driving on mines. • Compliance with road signage and speed limits. • Vehicles Park in the direction of travel with segregation of light and heavy vehicles. • In case of breakdown, place appropriate signage (cones, triangles, etc.) ahead and behind vehicle. <p>Ensure safe pedestrian behaviours:</p> <ul style="list-style-type: none"> • Use of designated paths. • Mandatory positive communication before approaching heavy vehicles (visual contact at 50 m, stop at 30 m, engine off at 10 m).
	Inspections and Audits	<p>Vehicles drivers must:</p> <ul style="list-style-type: none"> • Conduct a pre-start inspection using a dedicated checklist per type of vehicle. No Go' defects on a critical safety point must prohibit operation. <p>Maintenance & Area managers must:</p> <ul style="list-style-type: none"> • Check at least annually that the haulage roads operations are compliant with Group Safety standard "Safe Haulage Road". • Define and respect an inspection schedule. • Regularly inspect and maintain the vehicles and the roads to detect and address degradation early. • Verify safe traffic flow of vehicles and pedestrians and implement corresponding improvement actions in case of risks. • Tire repairs must be done according the Group standard.
	Personal Protection	<ul style="list-style-type: none"> • High-visibility clothing with reflective strips for all pedestrians. • Personal lighting for night shifts or poorly lit environments for pedestrians.
EQUIPMENT	Vehicles Equipment	<p>Vehicles safety features must cover at minimum those highlighted as critical in the Group dedicated checklist per type of vehicle in the Safety & Prevention Sharepoint:</p> <ul style="list-style-type: none"> • Light Vehicles (including Buses). • Heavy Vehicles (Dozer, Dump truck, Loader, Dumper, Excavator, Ground leveling). <p>All vehicles must:</p> <ul style="list-style-type: none"> • Be uniquely identified (ID linked to department or contractor). • Maintained as per OEM maintenance programs with inspection records registered.

LIFE-SAVING BEHAVIOURS

- 1 **I do not operate** a vehicle without valid authorization and permit.
- 2 **I always respect** traffic management plans.
- 3 **I always use** my seatbelt and **do not use** phone while driving.
- 4 **As a pedestrian, I ensure** driver acknowledgment before approaching any vehicle.



MACHINE PROTECTION

Machine protection requirements apply to the operation, maintenance, cleaning and adjustment of machines and equipment such as lathes, centrifuges, filters, crushers, conveyors and similar installations.
The objective is to prevent severe injuries caused by contact with moving parts, entanglement, crushing, cutting or ejection of materials.

	Topic	Requirement
EMPLOYEES	Training and competence	<p>Users of machines and equipments must be:</p> <ul style="list-style-type: none"> • Trained in their specific use: inherent hazards (moving part), existing collective or personal protection equipment, working procedure to follow, inspection prior to use, verification of protective devices in working order, identification and report of malfunctions. • Authorized by the manager. <p>Authorisations * are verified by the N+1, updated at least once a year and available in the workshops and plants.</p>
	Prevention methods	<p>Operating methods are available for each machine or item of equipment. They specify:</p> <ul style="list-style-type: none"> • The hazards of each machine/piece of equipment. • Major malfunctions which have occurred. • Prevention measures to be observed to minimize risks. <p>For each machine, OEM risk analyses and precautions are adopted and integrated into SOP/JSA. Use a risk-based approach to identify where machine protection, interlocks and emergency stops are required on all plant and equipment. If applicable, an information sheet summarizing the main items of information is available at the machine or piece of equipment.</p>
MANAGEMENT	Implementation conditions	<p>Operators do not wear loose clothing, jewellery, exposed long hair and beard or items that may become entangled. LOTOTO is performed before removing any safeguarding or interlocks for maintenance, repair, cleaning, clearing, etc. When removal of machine protection is necessary for maintenance, fault-finding, testing and commissioning, a risk-based SOP is always followed. Guards are replaced and interlocks restored before equipment is put back into operation. In case guard or other safety devices cannot be restored, a shunt procedure should be in place and a formal validation must be signed at least by a manager. In case the shunt is longer than 1 month, a new assessment and validation must be performed. When guards are removed «Danger Zone» signage and demarcation are in place.</p>
	Inspections and audits	<ul style="list-style-type: none"> • An inspection system ensures that protection devices for machines and equipment are in place, in good condition and working normally. • Any damaged or missing protection device is replaced immediately or the machine(s) stopped from use until it is replaced. • An inspection system ensures that, after a cleaning or maintenance operation, protection devices have been replaced properly and are working. • Management ensures that a machine or device presenting a risk to the operator's safety is immediately taken out of service for repair.
	Equipment	<p>The site keeps an up-to-date list of machines and equipment in service, as well as the certification inspection reports and maintenance logs. Machines & Equipment are designed to eliminate the need for guarding, where practicable. Machines & Equipment have adequate safety features such as:</p> <ul style="list-style-type: none"> • Pre-start alarms (for machines equipped with remote start-up). • Emergency stop mechanisms (buttons, pull wires, levers, etc.). • Electrical barriers (stop gates, light curtains). • Signage. <p>Safety devices or components (guards, alarms, emergency stops, etc.) are identified and maintained as part of a preventive maintenance plan. Machine and equipment with rotating and moving parts are guarded with :</p> <ul style="list-style-type: none"> • Prevent workers hands, arms and other body parts from making contact with dangerous moving parts. • Are firmly secured and not easily removable. • Ensure that no objects can fall into the moving parts. • Permit safe and relatively easy operation of the machine. • Allow the machine to be oiled without removing the safeguard.

LIFE-SAVING BEHAVIOURS

- 1 After intervention and before returning the equipment to service, **I always reinstall guards.**
- 2 **I do not work** on a live machine with moving parts, with loose clothing, jewelry, long hair or beard.
- 3 **I do not put** my hands close to moving parts of a machine unless specifically authorized by the safety operating procedure or risk analysis.



ELECTRICAL HAZARD

An electrical hazard includes the risk of direct or indirect contact with energized electrical conductors/ cables and that of electrical arc flash exposure. It covers the risk of exposure due to inadvertent energizing of electrical energy, contact with overhead power lines, contact with underground buried cables. The term 'electrical installations' covers all the low-, medium- and high-voltage electrical equipment implemented for production, conversion, distribution or use of electrical power.

	Topic	Requirement
EMPLOYEES	Training and competence	<p>Electricians and operators of electrical equipment must hold:</p> <ul style="list-style-type: none"> · Valid electrical certification relating to the voltage range and the tasks to be carried out. · Refresher and current training to maintain the required skills and standards for the use and maintenance of electrical installations. · Annual medical fitness examination. <p>Authorisations* are verified by the N+1, updated at least once a year and available in the workshops.</p>
	Prevention methods	<p>A work permit is required for all MV & HV work, including for excavation near cables or working in the vicinity of HV power lines. The permit must state all conditions to be applied before any work can start. Work on live electrical installations, systems or equipment is not allowed. Only exception is for testing with a valid live work permit*.</p> <p>Site electrical LOTOTO procedure (lock-out, tag-out, try-out) is defined and implemented (see related Essential Requirements for LOTOTO).</p> <p>Electrical installations are maintained in accordance with a maintenance and verification program.</p> <p>All electrical installations shall have an overall facility single line diagram, logbook, and list of competent/ authorized persons and emergency contact numbers.</p>
MANAGEMENT	Implementation conditions	<p>Authorized workers must isolate all hazardous electrical energy before performing tasks such as Maintenance, Repair, Installation, Cleaning, etc.</p> <p>Workers carry out a test for zero potential and "test for dead" at the specific piece of equipment/place of work itself prior to any work commencing to eliminate the risk of back feeds or stored energy.</p> <p>No metal or conductive objects (keys, jewelry, watches, tools not insulated) may be worn when working near MV or HV equipment.</p> <p>For excavation works:</p> <ul style="list-style-type: none"> · The presence of underground electrical cables must be assessed before work begins. · Cable routes must be clearly identified and protected with warning systems (tapes, tiles, markers). <p>In case of risk of being in the vicinity of overhead power lines, gantries or HV detectors are used.</p> <p>Firefighting equipment and first aid must be available at all MV/ HV installations.</p>
	Inspections and audits	<p>Site managers regularly audit electrical equipment and installations.</p> <p>Anyone, upon observing defect of an electrical equipment, shall immediately report and not use the damaged or non-standard equipment until it has been repaired or replaced by competent electrical staff.</p> <p>PPE should be checked by competent person before use.</p>
EQUIPMENT	CPE	<p>Electrical circuits shall be equipped with effective, and periodically tested, over-current and earth fault protection appropriate for the design of the installation. All domestic voltage systems 110/220 Vac will be fitted with 30mA earth leakage protection.</p> <p>Electrical rooms, panels and switchgear are identified with clear, concise and durable labelling and signage.</p> <p>Live parts must be made inaccessible for unauthorized workers performing electrical work (barriers, grilles, restricted access to premises, etc.).</p> <p>Electrical premises and access doors are locked and only authorized staff allowed to enter. Such premises are fitted with an escape system so that they can be opened freely from inside.</p>
	PPE	<p>In addition to standard PPE, workers performing electrical work shall be equipped according to voltage level with, at a minimum:</p> <ul style="list-style-type: none"> · There should be no copy key for any lock. · Individual keys for LOTOTO locks. · Safety helmet with integrated visor. · Insulating gloves with appropriate class. · Insulating safety footwear, type S3. · Insulating mat. <p>For testing purposes, it is mandatory to use insulated tools, corresponding to the voltage range.</p> <p>Additional PPE (e.g. hearing protection) is applied where required by risk assessment*.</p>
	Equipment certification	<p>Equipment and electrical devices must be ATEX-certified if used in an explosive atmosphere..</p>
	Emergency response	<p>Every MV or HV equipment and cabinet shall be equipped with firefighting equipment and an adapted first aid kit.</p>

LIFE-SAVING BEHAVIOURS

- 1 Before starting work on electrical equipment, **I ensure** that the equipment is disconnected from all power sources.
- 2 Before starting work on electrical equipment, **I ensure** it is voltage-free and tested for dead.
- 3 **I always lock** electrical cabinet and never open it without authorization.
- 4 **I always maintain** safe clearance from high-voltage power lines and **check for** underground cables before excavation.



LOTOTO (LOCK-OUT TAG-OUT TRY-OUT)

LOTOTO is mandatory for any work carried out on an installation, equipment or machine that may release hazardous energy (electrical, mechanical, hydraulic, pneumatic, thermal, chemical, gravitational, etc.). No intervention may begin until isolation is complete, verified, and validated.

	Topic	Requirement
EMPLOYEES	Training & competence	<p>Only trained, competent and authorized personnel (Authorized Isolators) may isolate and test equipment, installations and machines to ensure zero energy.</p> <p>Training, which must include a detailed review of every step of the LOTOTO procedure and a practical session, is mandatory for:</p> <ul style="list-style-type: none"> · all Isolation Permit issuers · all Authorized Isolators · all Isolation Permit receivers <p>The line manager (N+1) establishes the official list of Authorized Isolators and ensures mandatory refresher training is performed (at least every 3 years or after an incident).</p>
	Prevention measures	<p>A work permit* is issued only when an isolation sheet and a risk assessment* have been completed and signed.</p> <p>These documents must cover:</p> <ul style="list-style-type: none"> · interactions with other ongoing tasks · instructions for isolation involving multiple workstations · the duration during which the equipment will be out of service · approval of the permit by the area manager and signature by all workers involved <p>Specific Isolation Operating Modes (IOM) must be used for each piece of equipment. These documents must identify:</p> <ul style="list-style-type: none"> · all energies to be isolated, points of cut-off, purge, grounding and dissipation · all equipment required to lock out cut-off and/or dissipation points (Visible Break Switch, lockable valves, blocks, etc.), shown on an up-to-date diagram · the lockout and/or dissipation sequence <p>A strict procedure governs emergency cases requiring breaking a lock.</p>
MANAGEMENT	Implementation conditions	<ol style="list-style-type: none"> 1. Work preparation <ul style="list-style-type: none"> · Risk assessment* · Validated IOM · Authorized work permit* 2. Equipment shutdown <ul style="list-style-type: none"> · Normal shutdown according to procedure 3. Energy isolation <ul style="list-style-type: none"> · Electrical shutoff · Closing of valves · Grounding / purging 4. Lockout and tagging (LOCK OUT & TAG OUT) <ul style="list-style-type: none"> · Installation of locks (individual and group locks) 5. Zero-energy test (TRY OUT) <ul style="list-style-type: none"> · Absence of voltage / pressure / movement 6. Intervention <ul style="list-style-type: none"> · Authorized work under isolation 7. End of work <ul style="list-style-type: none"> · Removal of tools · Inform the Authorized Isolator 8. Tag-out <ul style="list-style-type: none"> · Removal of locks · Controlled reenergization
	Inspections and Audits	The activity is inspected regularly to ensure compliance with the risk assessment* and the Essential Safety Requirements.
EQUIPMENT	CPE	<p>Lockout and tagging equipment (locks, tags, chains, valve lockouts, lock boxes, etc.) must be:</p> <ul style="list-style-type: none"> · dedicated exclusively to this function and not used for anything else · standardized (shape, color, dimensions) and compliant with applicable standards · legible and resistant to the environment in which they are used (weather-resistant writing and signage) · available in sufficient quantities <p>Worker locks must be personalized and single-key.</p>
	PPE	In addition to standard PPE, additional PPE may be required depending on the type of energy involved (chemical, thermal, hydraulic, etc.).

LIFE-SAVING BEHAVIOURS

- 1 I do not carry out the job if the equipment is not locked out by a competent person.**
- 2 Before starting work, I add my own named padlock on the isolating points (visible break switch, locked box, etc.).**
- 3 I do not allow anyone to add or remove a padlock for me, and I never add/remove a padlock for a colleague.**



CONFINED SPACES

Confined spaces are totally or partly closed presenting those 3 criteria:

- **Restricted entry and exit:** this means that entry and exit are not easily achieved, which can pose significant risks during emergencies.
- **Not designed for continuous occupancy:** unlike regular workspaces, confined spaces are not intended for people to work in for extended periods.
- **Potential for hazardous atmospheres and engulfment:** many confined spaces can contain harmful substances, including toxic gases, flammable materials, or low oxygen levels.

Examples: furnaces, sewers, shafts, trenches, underground spaces, piping systems, tanks, reservoirs, silos, etc.

	Topic	Requirement
EMPLOYEES	Training and competence	Workers must have an authorization to work in confined spaces issued by the site director or his/her delegate, based on: <ul style="list-style-type: none"> • Medical fitness certificate issued within the previous year by the medical department, • Specific training for work in confined spaces, compliant with local regulations and covering use and checking the equipment used (gas detectors, masks, rescue equipment, etc.). One refresher is carried out every year, at least. Authorized list of personnel is kept up-to-date and available in the workplace or competency tracking system.
	Prevention methods	No person is allowed to enter a confined space without a Confined Space Entry Permit with following minimum mandatory information: <ul style="list-style-type: none"> • Risk analysis* linked to the nature of the work • Initial atmosphere testing results • Entry/exit register • Name(s) of supervisor(s) • Rescue plan Separate permits (e.g. hot work permit*) and risk assessments* must be done for activities that could change the atmosphere or introduce other hazards, for example welding that produces fumes. A confined spaces register is updated each year. All confined spaces on site must have clear signage near each entry point that says a Confined Space Entry Permit is required before entry. Where signposting is not practical, use other means of communication or ideally physical barriers. Every site follows a written plan/procedure that is available to all those working in confined spaces. The procedure must state the controls to manage the risks, including: <ul style="list-style-type: none"> • Atmospheric testing: A competent person must test the confined space atmosphere (gas and temperature) before entry and reports this measurement on the entry permit. • Temperature testing: In the event of a measured temperature > 55°C, preventive measures are specified in the procedure. • Isolation and lockout requirements for all energy sources, including moving machinery, processing material, fluid or gas flows. • Emergency response plan: emergency response procedures are regularly tested, including rescue personnel and equipment, how to launch a rescue operation, how to evacuate the workers from the confined space.
MANAGEMENT	Implementation conditions	When workers are in a confined space: <ul style="list-style-type: none"> • The atmosphere (gas & temperature) is continually measured. • Ventilation must allow sufficient renewal of fresh air. The recommended air renewal rate is 20 times the volume of confined space per hour. • Access control & spotter* person: There must be a person at the access point outside the confined space while people are inside. He/she always remains outside and must maintain direct contact with operators inside (visual, verbal or audio) and monitor their wellbeing. He/she makes sure the area is marked out and access respected.
	Inspections and audits	The site is regularly audited to ensure it proceeds in accordance with the procedure. Work is stopped if any hazardous situation is identified, until corrective measures are implemented.
	PPE	Fit for purpose PPE is used (gas detectors, masks, harnesses, etc.) depending on the task and will form part of the considerations for the confined space permit.
EQUIPMENT	Pre-usage inspections	Before working in confined spaces, the workers check the status of the safety equipment (gas detectors calibration, masks, harnesses, etc.) according to the protocol specified for the site.
	Certification of equipment	Equipment used (gas detectors, temperature, masks, harnesses, etc.) is certified within the previous twelve months by an accredited agency.
	Equipment register	The Equipment monitoring register for working in confined spaces is used to check certification of the equipment in accordance with the relevant standards.

LIFE-SAVING BEHAVIOURS

- 1 **I enter** the confined space only when appropriate rescue resources and communication means are available.
- 2 **I ensure** emergency response facilities (evacuation, care of victim) are available.
- 3 **I do not enter** a confined space without the entry permit given by a competent person that guarantees all conditions are met for a safe entry.



HAZARDOUS MATERIALS

These requirements apply to all activities involving hazardous chemical substances, including: storage, handling, transfer, transport, disposal. A hazardous material is a substance or mixture which can cause danger to human health, excluding radioactive and explosive materials as well as medical waste which have specific standards or regulations. This may include risks related to inhalation, skin contact, ingestion, combustion, or long-term exposure. The objective is to prevent acute and chronic health effects, fires, explosions, spills and environmental damage.

	Topic	Requirement
EMPLOYEES	Training and competence	Workers are authorized to handle or transport hazardous materials if: <ul style="list-style-type: none"> Chemical risk training has been validated covering the identification, risk assessment* and prevention of chemical risks. Medical surveillance is in place for personnel exposed to hazardous materials. All workers are informed of the risk of the substances they handle through the SDS. Workers must be trained on how to inspect, clean, maintain and use their specific PPE.
	Prevention methods	The storage area is surrounded by retention walls or retention basins are installed to prevent any leaks. Tanks and containers must be free of defects, lids & caps in place, located within secondary containment and in an easily accessible place for inspection. Pipelines are identified with a color code and flow direction. Labeling is in place on all storage vessels, containers and tanks to identify hazardous material as per international standards and SDS. Risks are signaled at the entrance to the area (pictograms, prohibitions, PPE). Safety Data Sheets (SDS) must be in local language, easily accessible and close to storage area. All substances are properly labeled and include the following information: supplier name, product name, hazard symbol, risk statements, and safety advices. Flammable substances are kept away from sources of ignition such as electrical sources. Otherwise, equipment must be designed and constructed for use in flammable areas (ATEX). «No smoking» and/or «open flames» signs are placed near flammable products. Any hazardous material must be approved by a competent person before they are brought onto site or disposed of. For any transport of hazardous materials: <ul style="list-style-type: none"> A classification (hazard class) and identification with UN number must be carried out. A safety data sheet for the transported products must be available on board. The least risky routes are chosen according to a risk assessment* (e.g. based on population density, road conditions, slopes, etc.).
MANAGEMENT	Implementation conditions	1. Storage <ul style="list-style-type: none"> Transferred containers are labeled with the same information as the main container. Incompatible substances are segregated with minimum 3 m distance, or physical separation. Flammable gas cylinders and oxygen cylinders are separated by 6 m, or by a non-combustible barrier (≥ 1.5 m high, ≥ 30 min fire resistance). Storage areas are properly ventilated. Gas cylinders are secured in cages or fixed to prevent falling. 2. Handling and Transfer <ul style="list-style-type: none"> Substances are stored in original, compatible containers only. Pipelines are never purged with compressed air. Specific SOPs define PPE and precautions for opening pipelines, drains, tanks and connections. PPE suitability and condition are verified before use. 3. Transport <ul style="list-style-type: none"> Hazard classification and UN number are defined. SDS is available on board. Vehicles are suitable and periodically inspected. The safest and least populated routes are selected. GPS or satellite communication devices are available where required.
	Inspections and audits	Planned inspections and maintenance of all hazardous material facilities, are carried by managers, in order to check compliance with ventilation, labeling, signage, emergency equipment, secondary containment and specific technical requirements
	Emergency measures	An eye wash station or eye cleaning kit exists near the storage or handling area, and they are regularly checked (once a week). Spill response kits are located near the storage area. Fire extinguishers are near flammable substances and up to date with their inspection The above equipment must also be available during the transport of hazardous materials. In case of high gas alarm the area must be evacuated.
	PPE	Specific PPE are defined according to the substance and risk assessment*. They may include: <ul style="list-style-type: none"> Chemical-resistant gloves (e.g. nitrile, neoprene). Visors or splash protection. Chemical suits. Respiratory protection (half mask, full-face mask, cartridges ABEK, P3, etc.). (condition, suitability for the substance, expiration date, gas mask cartridges are replaced as soon as there is doubt).
EQUIPMENT	PPE	

LIFE-SAVING BEHAVIOURS

- 1 **I segregate** incompatible materials when stored.
- 2 **I always know** where the emergency equipment (E.g: SDS, safety shower, etc.) is.
- 3 In case of high level alert, **I stop working** and **evacuate** the area.



WORKING AT HEIGHT

Work performed above a void in conditions that may cause a fall and injury to people, unless specific precautionary measures are in place.
 No operational, schedule, or production constraint justifies exposure to fall hazards.
 In case of doubt, the work must be stopped.

	Topic	Requirement
EMPLOYEES	Training and competence	Workers must hold a working at height authorization issued by the site director or representative, based on: <ul style="list-style-type: none"> • A valid medical fitness certificate (at least within the past year), verified by the medical service. • Specific working at height training compliant with local regulations (content, refreshers, etc.), including the use and inspection of equipment (work platforms, harnesses, lifelines, fall arrest systems) as well as emergency procedures. Only trained, certified and authorized workers may erect, modify, or dismantle scaffolding.
	Prevention methods	Working at height can only be carried out when the prevention measures defined in the risk assessment* or SOP have been implemented and verified in the field. Collective protective equipment is always prioritized. A work permit* is required for work above 2 m, access to fragile roofs, the use of aerial work platforms (AWP), or when collective protections are missing or insufficient.
MANAGEMENT	Implementation conditions	Access and work equipment: <ul style="list-style-type: none"> • Access is authorized only on scaffolds bearing a valid compliance tag. • It is forbidden to use or modify scaffolding without authorization and recognized competence. • Aerial work platforms (AWP / MEWP) are used only by trained and authorized personnel, on stable grounds, with a dedicated spotter. Harness use is mandatory. Organization and supervision: <ul style="list-style-type: none"> • Two people must be present (one of whom may be the spotter) when using a harness. • The spotter has the authority to immediately stop the work. Fall protection: <ul style="list-style-type: none"> • Harnesses are connected only to approved anchor points or certified lifelines. • The anchor point must be chosen as high as possible. • It is forbidden to use guardrails as anchor points unless supported by validated engineering calculations. Ladders and stepladders: <ul style="list-style-type: none"> • Used for less than 30 minutes, when no safer alternative is possible. • Three points of contact must be maintained at all times, and the ladder must be secured. Area protection: <ul style="list-style-type: none"> • The area must be delimited, barricaded, and marked as a restricted/exclusion zone. • Tools must be secured against falling. Environmental conditions: <ul style="list-style-type: none"> • Immediate work stoppage if wind exceeds 45 km/h or in adverse weather conditions. • Working near unprotected live electrical lines is prohibited.
	Inspections and audits	All working at height equipment must be logged, with documented certifications and inspections. Recertifications must be performed by a competent person at least every 12 months (or more frequently according to regulation). Internal inspections must occur between certifications and be recorded. Scaffolds must be inspected by a competent person different from the one who erected/modified them. Scaffolds must be inspected after weather events (strong wind, rain, snow). <ul style="list-style-type: none"> • Compliance tag (access authorized) for compliant scaffolds. • Non compliance tag (access prohibited) for non compliant, incomplete, or dismantling scaffolds. Ladders: visual inspection before using + inspection by a competent person at least every 6 months, with records. PPE: visual inspection before using + inspection by a competent person every 3 months, with records. Anchor points and lifelines: inspected by a competent person, considering the maximum allowed number of users. Aerial work platforms: checklist before each use. Temporary barriers: daily inspection. Gratings / floor panels: annual inspection according to Group standard.
	Emergency measures	Specific rescue measures for working at height must be defined. Examples: suspension trauma relief devices or harnesses with emergency descent systems, at minimum for operations without rapid rescue availability (depending on the risk assessment*).

EQUIPMENT	CPE	Permanent platforms and walkways at height must include: <ul style="list-style-type: none"> • guardrails • top rail, mid rail, and toe boards Aerial work platforms must: <ul style="list-style-type: none"> • have ground and basket controls • be used on flat, stable ground with outriggers deployed • have a spotter present for the entire duration of the operation Floor openings must: <ul style="list-style-type: none"> • be protected with rigid barriers • be covered with resistant plates capable of supporting the heaviest expected load, and locked if seldom used. Ladders and stepladders: logged, secured, inspected and tagged according to the defined frequency; stored in controlled areas. Use non conductive materials (fiberglass, wood) when electrical risk is present. Damaged equipment or equipment with expired certification: isolated in a controlled area until repaired/recertified, otherwise scrapped.
	PPE	In the absence of collective protection, workers must wear: <ul style="list-style-type: none"> • a full body harness adapted to body shape • a restraint system or a fall arrest system • double lanyard for scaffold erectors or work requiring movement between levels • connectors (carabiners, hooks) with double action locking (self closing and self locking).

LIFE-SAVING BEHAVIOURS

- 1 **I never work** at height without fall arrest or collective protections.
- 2 **I connect** my fall arrest/restrain lanyard equipment to approved anchor points.
- 3 **I secure** tools/equipment from falling.
- 4 **I demarcate** the safe zone below.
- 5 **I only access** to a scaffold with a compliance tag.



MECHANICAL HANDLING

These requirements apply to all mechanical handling and lifting operations, including the use of mobile crane, overhead cranes, truck mounted cranes, hoists, forklifts, etc. and their lifting accessories.

	Topic	Requirement
EMPLOYEES	Training and competence	All personnel involved in lifting operations must be medically fit, trained and competent for their specific tasks. Only authorized personnel may operate lifting equipment, in accordance with OEM instructions and Group standards.
		Lifting must be validated by a competent authority (lifting engineer, HSE manager, or external organization as applicable). Any critical lifting* operations are subject to a lifting permit and lift plan with a detailed risk analysis* and the operating method determined. A lift is considered critical when it meets one or more of the following criteria: <ul style="list-style-type: none"> • The load exceeds 85% of the nominal capacity of the lifting equipment. • Tandem lifting (simultaneous use of multiple lifting devices). • Lifting of people (suspended platforms, baskets). • Unstable load or with a variable center of gravity. • Load whose trajectory or destination is out of the operator's sight. • Lifting in hazardous environments (proximity to power lines, explosive atmospheres, etc.). Lifting plan includes at minimum loose loads, center of gravity, lift calculations, equipment selection, rigging data, exclusion zones, ground conditions, weather impacts and two-way communication.
MANAGEMENT	Prevention methods	Prevention measures ensure that: <ul style="list-style-type: none"> • Choice of handling equipment compatible with the load (capacity, Working Load Limit WLL labeling, safety factors, etc.) and maneuvers (ground conditions, travel, etc.). • Site preparation the set-down zone and the anchorage of the load once in place. • Anchor points are present as per design and inspected before use. • The position of the lifting team (operator, rigger, banksman, spotters, etc.) to monitor the load. • Demarcating the operational exclusion zone demarcating the No-Go zone and the exclusion zone according to risk assessment*. • Designated travel route, free of obstructions and overhead hazards.
	Implementation conditions	During safety briefing: all participants must be informed of risks, roles, and procedures. Supervisor checks that risk assessment* or lifting plan are known and Take5 is done. During operations: the manager always monitors the load and checks that the exclusion zone is respected. In case of critical lift, continuous supervision must be present in addition to lifting operator. The team has two-way communication methods and devices that are appropriate to the work conditions. Demarcate No-go zones (no-one close or below the load) and create exclusion zones through barricading and access control Housekeeping in and around lifting zone is done. Use of hands-off safety tools or taglines to steady and guide loads. The crane is in proper position according to the plan and outriggers well positioned. Weather conditions (especially wind & lightning) are monitored. Provide sufficient lighting where lifting operations are taking place. All lifts that require the use of a permit must state emergency response protocols.
	Inspections and audits	Pre-operational safety checks on lifting equipment and accessories (slings, chain blocks, hoists, shackles, beams, winches, hooks, etc.), must be carried out before use. Lifting equipment and accessories must be clearly tagged with a color code and a unique ID to track compliance to testing and inspections. Color code must change at least every quarter. Regular inspections must be planned and include equipment, accessories, storage conditions, service and maintenance programs to ensure it stays certified and fit for purpose. The consolidated list of equipment and accessories is kept up to date and is available on site. A register (maintenance log) for the maintenance operations is kept up to date for each item of lifting equipment.
EQUIPMENT	Equipment	All lifting equipment is certified for use in accordance with regulatory and manufacturer requirements. All lifting beams must be equipped with end stops to prevent over-travel and load limiters to prevent over-loading. All hooks have positive locking safety latches (unless defined otherwise by regulation/procedure). Equipment is stored in dry, clean, vibration and chemical-free environment. Lifting equipment subject to wear and frequent replacement must be colour coded to confirm compliance with inspection requirements. Ensure defective equipment is labeled, scrapped and destroyed.
	Equipment certification	Annual certification of lifting equipment must be done by a 3rd party service provider or an approved internal competent person. All lifting equipment (cranes, beams, etc.) and their accessories are certified for use in accordance with regulatory and manufacturer requirements.

LIFE-SAVING BEHAVIOURS

- 1 **I never position myself** below suspended load or inside the exclusion zone.
- 2 **I always use** lifting accessories and equipment that are fit for use and rated for the duty.
- 3 **I never touch** the suspended load. **I use** tagline or hand extension if I need to control the load.
- 4 **I always use** a lifting permit and lift plan to perform a critical lift.



MOLTEN METAL

These requirements apply to any restricted area where molten metal is produced, handled or transported, including tapping, casting and ladle transport operations.

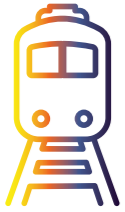
The objective is to prevent fatal and severe injuries caused by molten metal splashes, explosions, radiant heat, hydrogen generation and uncontrolled spills.

	Topic	Requirement
EMPLOYEES	Training and competence	<p>Authorizations for personnel working in danger zones are validated by the N+1 based on skills and training and are accessible in the workshops.</p> <p>No one is authorized to work in a danger zone or transport molten metal without authorization duly signed by the N+1/zone manager.</p> <p>Medical surveillance is implemented for personnel exposed to molten metal hazards.</p> <p>Training for personnel working in danger zone must cover :</p> <ul style="list-style-type: none"> • Controls required to safely manage hazards based on SOP. • Duties and responsibilities under emergency conditions. • Potential acute health effects.
	Prevention methods	<p>Processing and handling areas for molten materials must be designed to safely contain or direct any spill.</p> <p>Danger zones must be identified through a risk analysis and marked on a sector plan, along with entry points to the zone.</p> <p>Have an access control system in place.</p> <p>Have a dedicated transport system and routes for molten ladles.</p> <p>Procedures (SOP or equivalent) are defined and understood.</p> <p>Ventilation (extraction) is in place and operational to ensure fumes are removed and evacuated to a zone outside worker exposure.</p> <p>Hydrogen generation from water-metal contact is prevented by systematically controlling the absence of water:</p> <ul style="list-style-type: none"> • In raw materials (water or humidity limit). • In equipment in contact with metal or slag (ladles, runners, crucibles, tools, sand in casting zones, electrodes). • On the ground, in casting pits, in furnace containment areas, and all other workshop retentions. • Related to leaks from cooling systems or any water piping in the workshop. • After maintenance work before resuming operations (crucibles, ladles, refractories, etc.). • From rain (holes in the roof, etc.).
MANAGEMENT	Implementation conditions	<p>Before any metal casting, The casting chief / manager ensures verification of:</p> <ul style="list-style-type: none"> • The good condition of refractories around the casting hole. • The absence of grease on the oxygen lance. • The proper preparation of runners and casting zones, in line with the expected product quantity. • The good condition of ladles, pots, and crucibles (visual inspection). • The order and cleanliness of work areas and pits. • The proper hydraulic or pneumatic level of the plugging equipment. • The presence and condition of the required safety equipment (PPE, showers, burn blankets, extinguishers, etc.). • Sufficient stock of plugging paste, including an additional quantity for emergencies, in accordance with the site's procedure. • Before and during the casting, the danger zone is effectively closed and limited to employees working there. • The absence of obstacles on emergency evacuation paths. <p>Before moving a metal ladle, the crane operator ensures:</p> <ul style="list-style-type: none"> • The completion of the daily checklist for lifting equipment. <p>The inspection of :</p> <ul style="list-style-type: none"> • Lifting accessories before the shift. • The functional test of the sound alarm. • The use of the sound alarm before starting or when a danger is present in the operation zone. If there is no sound alarm available, another sufficient method to alert people in the zone is available • The availability of a functional radio/phone/walkie-talkie for crane operators. • The systematic vertical lifting of ladles and their movements without swinging or abrupt movements. • Controls of access are implemented to protect against the consequences of a spill/of liquid metal. or falling from a pocket during transport. <p>Casting operations are:</p> <ul style="list-style-type: none"> • Automated and remotely controlled where possible. • Otherwise performed outside the direct line of sight with protective screens and/or with bent oxygen lance. <p>Operators are never alone during manual casting/tapping operations.</p> <p>During the transport, the operator is protected against accidental spillage by means of a heat-resistant physical barrier or a safe distance.</p>
	Inspections and audits	<p>Personnel working in areas with liquid metal presence are regularly supported/controlled by workshop management to ensure that the liquid metal risk is controlled by the agents.</p> <p>Critical equipment and measuring instruments are regularly inspected and routine maintenance is carried out and recorded («refractory integrity», hydraulic network, drilling/sealing machine, oxygen lance, pockets, crucibles, bridges, slings and showers, etc.)</p>
	Emergency measures	<p>Excessive flows are easily diverted and contained in a pit, container, or overflow tank of adequate size.</p> <p>In case of a power outage, suspended loads must be secured, and an emergency procedure must be implemented.</p> <p>There are two distinct emergency exits in all liquid metal processing areas.</p>

EQUIPMENT	PPE	<p>In addition to standard PPE, personnel working with liquid metal wear ISO or CE-standard PPE adapted to the risk of liquid metal splashes and radiant heat.</p> <p>At a minimum:</p> <ul style="list-style-type: none"> • High-top shoes. • Aluminized clothing (International standard) worn over the shoes. • Gloves (over-gloves, cuffs, sleeves with flaps are recommended). • Face protection against radiation (if a visor is used, additional eye protection is mandatory). • A fire-resistant hood (for example Nomex). • Cotton or equivalent undergarments (do not wear flammable synthetic materials).
	Equipment certification	<p>Bridges and lifting accessories used for transporting pockets, as well as hydraulic/pneumatic networks and fire extinguishers, are certified within the last year by an internal or external competent person.</p>
	Equipment register	<p>Equipment certification to applicable standards is verifiable in the equipment tracking registry.</p>

LIFE-SAVING BEHAVIOURS

- I never start tapping or casting if there is a risk of metal/water contact.**
- I use PPE to be fully protected against possible molten metal splash and radiant heat.**
- I never allow unauthorized people to enter the forbidden zone during tapping and casting.**



SHUNTING OPERATIONS

These Requirements apply to shunting operations (pulling, pushing, coupling, uncoupling) in a yard, depot, workshop or on the open line. They define a few minimum rules but do not replace the General Railway Safety Regulations (RGS) associated with local regulations, which are much more detailed.

Topic	Requirement
EMPLOYEES	<p>Training and competence</p> <p>Shunting agents* (ADM) and train drivers (ADC) are specifically trained in the safety rules and procedures applicable to this type of shunting operation. The training covers at least:</p> <ul style="list-style-type: none"> • route identification and training • regulatory orders for directing the shunting operation by radio or flag <p>The medical fitness of ADC and ADM is validated each year.</p> <p>A fatigue detection test must be performed for all ADC and ADM.</p> <p>A "certification" file records the up to date list and validity period of ADC and ADM certificates.</p> <p>Each agent has their certification available during their work shift.</p> <p>A "monitoring plan" (skills follow up) is in place to periodically verify the theoretical and practical knowledge of ADC and ADM.</p>
	<p>Prevention methods</p> <p>The safety rules governing each shunting operation are summarized in a SOP/Shunting Plan specific to the yard, depot, workshops, etc., distributed to the personnel concerned (ADM, ADC, Safety/Shunting Supervisor) and containing at minimum:</p> <ul style="list-style-type: none"> • switch operation • the successive planned movements, specifying in particular how far the driver must pull or push so that they can estimate the stopping distance available • any particularities these movements may involve (e.g. pushing on a short track or an occupied track, equipment encroaching on the clearance gauge, etc.) • the position and role of the agents involved in the shunting operation • the number of vehicles to be shunted or the approximate tonnage, and whether the train is braked or not
	<p>Implementation conditions</p> <p>Before the shunting operation, immobilization instructions are followed to prevent any unintentional movement of the trains during shunting.</p> <p>Before the operation, the instructions described in the SOP/Shunting Plan ("pre agreement" / "shunting terms") are given by the ADM and repeated by the ADC ("read back").</p> <p>Execution of the shunting operation must respect:</p> <ul style="list-style-type: none"> • the shunting instructions • a maximum speed of 30 km/h on the track for pulled movement • a maximum speed of 10 km/h on the track for pushed movement • a maximum speed of 5 km/h at specific points (level crossings, tippers, workshop, etc.) • use of required PPE (day and night) • persons (agents, users, etc.) keep a ground safety distance of at least 3 meters from the shunting area until the train has come to a complete stop • the ADM must remain outside the clearance gauge during train movement and be visible or in permanent radio contact with the ADC • prohibition on getting on or off when the movement is underway • prohibition on the use of mobile phones during the entire shunting operation, except in exceptional cases of radio failure, where it may temporarily replace radio communication • protection of level crossings before and during movement • the use of an anti whiplash system for air purge hoses before pneumatic uncoupling; • the three point contact rule • anti runaway measures (chocks, etc.) to prevent vehicles from rolling away during the uncoupling operation <p>The ADM has authority over all agents involved in the shunting operation, including the ADC. The ADC remains vigilant and respects signaling.</p> <p>The ADM must give the ADC slow down and stop orders in due time to avoid violent coupling of vehicles, overshooting the fixed limit point, or collision with a buffer stop.</p> <p>Entering the clearance gauge of the train is only allowed at the end of the shunting operation, once assurance is given by the driver that the train is immobilized.</p>
<p>Inspections and audits</p> <p>ADM and ADC personnel verify equipment condition before first use according to the defined protocol, covering at least the following critical checks:</p> <ul style="list-style-type: none"> • condition of their equipment • brake test is OK • steps are compliant • handrails are secured • horn is working • couplers are in good condition <p>The shunting area must be inspected before the operation to detect any hazard/safety problem and ensure that tracks are fit for use.</p>	

EQUIPMENT	CPE	<ul style="list-style-type: none"> • track protection devices • chocks / stop shoes (rail clamps) • derailleurs / wagon blockers • fixed or mobile buffer stops • signage and marking • prohibition signs ("Do not cross", "Shunting in progress", etc.) • work area marking (cones, barriers, tape) • communication and coordination means • radio or certified secure communication equipment (railway VHF, certified walkie talkie) • visual or audible systems on locomotives or equipment <ul style="list-style-type: none"> - shunting lights - audible warning device - horn • technical devices on vehicles • coupling shoes / coupling guides to reduce risks during coupling operations • functional handbrake on wagons before any action
	PPE	<p>In addition to standard PPE (helmet, shoes, glasses, appropriate work clothing), agents must be equipped with:</p> <ul style="list-style-type: none"> • cut resistant / pinch resistant gloves for coupling and manual handling • protective gaiters when exposed to hazardous flora or fauna
	Tools / protection and signaling equipment	<ul style="list-style-type: none"> • switch keys / turnout operating devices • red flag / green flag • headlamp or lantern for night shunting or poor visibility, with correct operation checked before use • detonators (according to local regulation) • radio checked before use, with a clip or harness so as not to interfere with three point contact • whistle to support hand signaling

LIFE-SAVING BEHAVIOURS

- 1 Unless I am a shunting or driving operator, **I always maintain** a safety distance of at least 3 meters from the shunting area until the train has come to a complete stop.
- 2 As a driver, **I stop** the shunting operations if **I am unable** to establish communication (hand signal, radio, or any other visual signal) with the shunting operator.
- 3 As a driver or shunting operator, **I always check** the condition of the equipment and tracks before any shunting operation.



MARITIME SAFETY

These requirements apply to all maritime activities performed on our sites/wharfs, involving vessels and barges owned or contracted by Eramet, including mooring operations, loading and unloading of raw materials or finished goods, transfer of personnel to and from ships or barges. These requirements define minimum safety expectations and do not replace IMO Safety Management Code (ISM), SOLAS Convention, STCW Convention or any other applicable local maritime regulations. The objective is to prevent fatal and severe accidents related to falls into water, mooring line failures, vessel movements, lifting operations and adverse weather conditions.

	Topic	Requirement
EMPLOYEES	Training and competence	<p>Masters, Pilots, supervisors and seafarers are specifically trained in the safety rules and procedures, in accordance with IMO Seafarers Training, Certification and Watch (STCW) standards and local regulations.</p> <p>A «follow-up plan» (competency tracking) is implemented to periodically check the theoretical and practical knowledge of masters, pilots, supervisors and seafarers.</p> <p>All the people involved (i.e. crew, workers & passengers) know the risks and are aware of the rules, in particular life-saving behaviors:</p>
	Prevention methods (before starting)	<p>All prevention methods for Mooring, Loading/unloading and Person transfer are defined in a risk analysis* document and the main ones are integrated into standard operating procedures/plans (SOP).</p> <ul style="list-style-type: none"> • For mooring activities, the mooring plan must show the team size and location as well as number and the order of the lines. • For loading/unloading activities any specific conditions, such as unloading/loading quay area, crane area, loading/unloading arrangements should be clarified in the plan. • Before authorizing person transfer, check navigation license with maximum number of passengers, safety equipment and sailing conditions indicated, insurance certificate including liability insurance for each passenger. <p>Safety meetings are held with all crew members participating in the activity, during which safety procedures and measures are discussed, refreshed and clarified according to the conditions of the day (such as direction and speed of the current, origin and strength of the wind).</p>
MANAGEMENT	Implementation conditions (including, but not limited to)	<p>1. General Rules Activities remain under the control of an experienced person at all times.</p> <p>2. Mooring Operations Key safety points include:</p> <ul style="list-style-type: none"> • Continuous VHF and visual communication. • Clear/unobstructed quays. • Safe handling of hawsers and wire ropes: <ul style="list-style-type: none"> - never directly from the spool, - correct positioning of personnel, - avoidance of snap-back zones. • Proper securing and tensioning of lines. • No standing in snagging or tension zones. <p>3. Loading / Unloading</p> <ul style="list-style-type: none"> • Continuous VHF communication between quay and crane operator*. • Gangway correctly installed before operations. • No pedestrian traffic in crane working areas. <p>4. Transfer of Personnel</p> <ul style="list-style-type: none"> • Transfers only in low to moderate swell. • One person at a time on pilot ladders. • Lifelines ready and handrails in good condition. • Adequate lighting for night operations.
	Inspections and audits	<ul style="list-style-type: none"> • Carry out a regular inspection of the vessel and barges. • Carry out a regular inspection of the mooring lines. • Any damaged equipment is reported immediately, logged and addressed.
	PPE	<p>Before using the equipment, the crew, workers and passengers must check that it is in good condition and suitable for the operation being undertaken, including but not limited to the following:</p> <ul style="list-style-type: none"> • Emergency rescue equipment (such as lifebuoys). • VHF radio. • Mooring lines. • Life jackets for any personnel standing less than 5m from the water. <p>All the personnel are wearing appropriate PPE (helmet, protective footwear, gloves, life jacket with self-igniting light if night activities).</p>

LIFE-SAVING BEHAVIOURS

- I ensure** the weather conditions are suitable for my activities.
- I never work or walk** close to the edge of the water without wearing my life jacket.
- I move away** from the snagging area (snap-back) of the hawsers and wires under tension.
- I know** overboard procedure (what to do if someone falls in water).



AVIATION SAFETY

These requirements apply to all aviation activities involving aircraft owned, chartered or contracted by Eramet, including manned aircraft operations and Remotely Piloted Aircraft Systems (RPAS). These requirements define minimum safety expectations and are based on Flight Safety Foundation Basic Aviation Risk Standards (BARS). They do not replace national or international aviation regulations nor operator responsibilities. The objective is to add additional barriers to prevent fatal and serious aviation accidents.

	Topic	Requirement
EMPLOYEES	Training and competence	All personnel associated with aviation operations: pilots, cabin staff, ground handlers etc are trained and qualified (in accordance with local and BARS regulations) to operate the aircraft on contract. Operational recency requirements are maintained.
	Induction	All Eramet staff are familiarised with the requirements: <ul style="list-style-type: none"> • To only travel on aircraft and with air operators* authorised by Eramet management • To only use RPAS operators authorised by Eramet management
	Trained personnel register	The aircraft operator maintains a register of qualified/authorised pilots and flight crew and monitors flight and duty time.
	Prevention methods	The RAM develops an Air Transportation Plan that identifies specific air transport requirements. Working with the aircraft operator he/she ensures: <ul style="list-style-type: none"> • All manned aviation activities conform to the Flight Safety Foundation Basic Aviation Risk Standards. • Where this is not possible a Variance is recorded and managed Eramet personnel and contractors only fly aboard aircraft when they are authorised to do so All manned aircraft operators utilized by Eramet have: <ul style="list-style-type: none"> • A valid Air Operator's Certificate (AOC) • Operations Specifications (with approvals to operate the aircraft and operations under the scope to be provided to Eramet) • Approval for Aircraft Maintenance Organisations • Safety Management Systems (SMS) • Quality Management Systems (QMS) Or equivalent certifications from the relevant aviation regulatory authority RPAS operators have local regulatory authority approval The Responsible Aviation Manager (RAM) maintains a risk register relating to aviation under his/her control. This is reviewed regularly and in response to any aviation related accident/incident. Risks are identified and controled, including: <ul style="list-style-type: none"> • Lack of Standard Operating Procedures • Inadequate training, experience, competence • Fatigue • Weather • Maintenance • Lack of Communication equipment • Conditions of the infrastructure (airports, airfields and landing sites)
	Implementation conditions	Eramet internal processes are in place for: <ul style="list-style-type: none"> • The selection and contracting of aviation providers • The approval of flights by Eramet employees and contracted staff • The approval of RPAS flights Where required (such as over water flights, jungle, desert) passengers are appropriately trained (Helicopter Underwater Escape Training (HUET), Jungle/Desert survival training). Third party audit organisation(s) have been selected and contracted to audit contracted air operators.
	Inspections and audits	Manned aircraft: <ul style="list-style-type: none"> • The aircraft operator has passed a BARS audit • An Operations Review will be conducted on the aircraft operator on an annual basis • Regular contract performance review take place, attended by Eramet and air operator personnel RPAS operations are subject to Operational Reviews and contract performance reviews according to the length of the contract
	Emergency measures	Emergency equipment meet the requirements set out in the Flight Safety Foundation BARS Standards. An aviation Emergency Response Plan is in place which is coordinated with the aircraft operator and civil authorities and is regularly exercised.
EQUIPMENT	Equipment	All aircraft (manned and RPAS) and associated equipment meet the requirements set out in the Flight Safety Foundation BARS Standards. Manned aircraft and associated equipment are subject to an Approved Maintenance Programme managed and implemented by a Maintenance Organisation approved by the local regulator. RPAS are maintained in accordance with manufacturer's instructions with the OEM (Original Equipment Manufacturer).
	Certification of equipment	Manned aircraft and associated equipment are appropriately certified for use by OEMs and national regulators. In the case of RPAS, a system is in place to ensure that the aircraft can meet minimum safety standards.

LIFE-SAVING BEHAVIOURS

- 1 **I only fly** on aircraft and with air operators approved by Eramet.
- 2 If travelling in a helicopter or an aeroplane, **I have been** appropriately briefed and **equipped**.
- 3 When travelling by air, **I respect** instructions from the ground staff and aircraft crew.



Find all the Essential Requirements on
the Group Safety & Prevention SharePoint

<https://erametgroup.sharepoint.com/sites/DSP>

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