

Wärtsilä life-saving rules



Wärtsilä Life-saving rules

- Wärtsilä 10 **life-saving rules** are put into effect to ensure that consistent behaviors are followed to **prevent** incidents that could result in a **severe injury or a fatality**.
- Life-saving rules are developed based on **the lessons learned** from fatalities and life-threatening incidents that have occurred in Wärtsilä operations in past years.
- Life-saving rules are intended to supplement and support existing safety management systems, programs, and policies, like the **Alcohol and Drug Policy**.

Implementation

- All members of the workforce should understand that they have the responsibility and authority to **intervene** and **stop work** if they observe non-compliance to life-saving rules or any other unsafe activity – **stop and care**.
- We have **Zero tolerance** regarding breaches of life-saving rules, and each Wärtsilä local company shall have a disciplinary procedure in place to address safety violations according to **a global toolbox**.
- It is important that the Life-saving rules are **communicated** to **all workers** and **partners** who are involved with our operations or visiting our premises, preferably as part of new worker/visitor induction, pre-job discussion, etc.
- Implementation of Life-saving rules is part of Wärtsilä commitment to continuous improvement in safety and **strengthening our safety culture**.



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Work with a valid work permit / JSA when required



Co-ordinate simultaneous operations to prevent safety conflicts



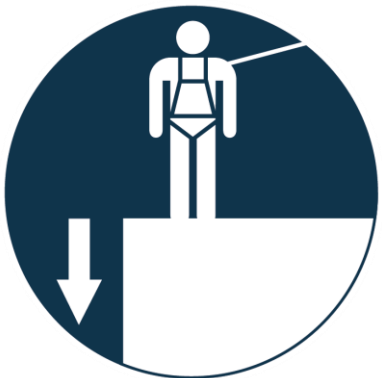
Verify isolation when working on energized systems



Always use equipment that is fit to its intended purpose



Ensure safe conditions before entering a confined space



Protect yourself against a fall when working at height



Obtain authorization before overriding or disabling safety critical equipment



Wear required personal protective equipment



Stay out from under suspended load



Wear your seat belt and comply with road safety rules

Wärtsilä Stop Work Authority



Stop Work Authority

Wärtsilä is committed to create and maintain a safe and healthy workplace for our employees and partners in all of our business operations. It's everyone's responsibility and authority to intervene and stop work in an unsafe situation. You have the full support of Wärtsilä Management to exercise the authority to stop work.



Håkan Agnevall
President & CEO
Wärtsilä Corporation



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Co-ordinate simultaneous operations to prevent potential safety conflicts



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Work with a valid work permit / JSA when required

A Job Safety Analysis (JSA) identifies the hazards and risks and required safety controls, related to a specific work task. **A work permit** describes what you must do to stay safe during work.

Principles

- Identify the work which requires Job Safety Analysis (JSA) and/or a work permit
- Confirm that the JSA and/or work permit is valid
- Understand the JSA and/or work permit
- Implement required safety controls defined in the JSA and/or work permit
- Confirm with the person in charge of the work that it is safe to start work
- Work permits may be required for several activities like hot work, confined space entry, working at height, excavation, lockout/tag out, and electrical work
- Make sure that the JSA and/or work permit is communicated to the whole team involved in the operation





Co-ordinate simultaneous operations to prevent potential safety conflicts

Simultaneous Operations (SIMOPS) occur when two or more potentially conflicting activities are executed in the same work location simultaneously (Wärtsilä/customer/contractors). The risks with simultaneous operations can be managed through proper planning, communication, and supervision.

Principles

- When simultaneous operations are involved, all parties involved meet regularly to assess and discuss all activities undertaken, and how they will impact each other.
- Limit the number of simultaneous operations when conflicts are identified
- Check the need for a JSA/work permit, and agree on supervision
- Agree on safety measures for the simultaneous tasks (e.g. barricading)
- Agree on communication methods and ensure that all involved personnel know the schedule, required safety measures and any changes in operations
- Solid/hard barricading or locking procedure (with warning signage) is the principal method to restrict personnel access to hazardous area





Verify isolation when working on energized systems

Isolation of energy separates you from danger, such as electricity, pressure, hazardous chemicals or radiation, hot/cold liquids, or mechanical energy to keep you safe.

Principles

- Understand the isolations that protect you from danger
- Identify correct locations and systems that require isolation
- Confirm isolation is in place, and done by approved methods
- Isolation points shall be locked and tagged to ensure equipment cannot be switched on by accident
 - Typical lockout & tagout methods are locking switches, separating pipes with spades/blind flanges, or locking access doors
- Confirm that no stored energy or other dangers remain
- Verify by test and/or observation that all energy sources are de-energized
- Confirm with the person in charge of the work that isolations are in place, and it is safe to start work
- Communicate the status of isolations between shifts and different workgroups
- Monitor the isolation periodically for effectiveness





Always use equipment that is fit to its intended purpose

Use of improper or worn-out **equipment** exposes you to unexpected situations like dropping load, ejecting object, slipping tool, pressure or chemical release, entanglement, electric shock, or falling which can be life-threatening.

Principles

- Select the equipment according to work instructions and specifications
- Assure that equipment is in safe condition, and inspected properly
- Get fully acquainted with all tools/machinery/ equipment that you are to use and read thoroughly the relevant technical manuals
- Be properly and sufficiently trained on the use of equipment required for your work
- Some examples of equipment that may cause serious injury if not fit to its intended purpose: lifting equipment, hydraulic or pneumatic tools, electrical equipment, welding equipment, rotating and cutting machinery, mobile equipment (forklifts, etc.), ladders and scaffolds





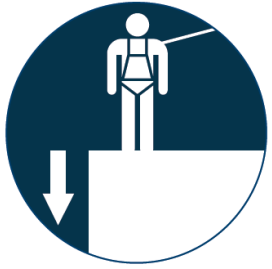
Ensure safe conditions
before entering a
confined space

Confined space, such as a pressure vessel, tank, or pipe can contain explosive gas, poisonous air, or other dangers such as a lack of oxygen, things that can fall on you or you can fall from.

Principles

- A confined space is large enough for personnel to enter, has limited or restricted means of entry or exit, and is not designed for continuous occupancy
- A confined space entry permit shall be issued - authorized access keeps you safe
- Make sure that all sources of energy affecting the space are isolated
- An attendant shall be stationed at the entry point and maintain communication with entrants during the time the occupants are inside the confined space
- Follow the requirements of the confined space work permit, such as regular gas testing, ventilation, communication methods with team members, and use of approved tools
- Assure that a plan for timely rescue of workers is in place in case of emergency
- Confirm with the person in charge of the work that it is safe to start work





Protect yourself against a fall when working at height

Fall from height is one of the most common causes of workplace fatalities. Use personal fall protection equipment when working outside a protective environment where you can fall over 2 meters (6.75 feet)* to keep you safe.

Principles

- A personal fall protection system should always be used:
 - when exposed to the risk of falling more than 2 meters (6.75 ft) outside a protective environment (surface with an unprotected side or edge)
 - while working on a suspended platform or in a man lift basket /boom lift
- Be aware of what fall protection equipment to use and how to use it
- Personal fall protection system consists of an anchorage, connectors, and full body safety harness and may include a lanyard, deceleration device, lifeline, or a suitable combination of these
- Check fall protection equipment before using it
- Ensure that 100% tie-off is achieved, and that equipment is properly anchored
- Discuss with work site management if the fall protection could be primarily arranged by installing approved scaffolds, stairs with handrails or guard rails
- Life vest shall be worn when using an accommodation ladder, pilot ladder, or stepping from one vessel to another while embarking or disembarking a vessel.

** Local legislation or customers may have stricter requirements that have to be followed.*





Obtain authorization before overriding or disabling safety critical equipment

Safety critical equipment must work correctly to keep you and your colleagues safe. During maintenance and commissioning operations overriding or disabling safety critical equipment requires authorization.

Principles

- Overriding or disabling of safety-critical equipment may be required in case of maintenance, troubleshooting, or commissioning activities
- You should obtain authorization from the person in charge before overriding or disabling safety-critical equipment
- Do not change or remove any warning, forbidden, or command signs, or any barrier or hazard marking
- Examples of safety-critical equipment include isolation devices/emergency shut-down valves, lock-out/tag-out devices, trip systems, relief valves, fire, and gas alarm systems, certain level controls, alarms, crane computers, in-vehicle monitoring systems, covers of mechanical equipment and components of fall protection structures (e.g., guardrails and gratings).





Wear required personal protective equipment

Personal protective equipment (PPE) provides the last barrier between the person wearing it and the hazard necessitating it. It can save your life in case any other safety control fails.

Principles

- Personal protective equipment (PPE) refers to protective clothing, safety helmet, eye protection, safety shoes or gloves, life vest, or other garments or equipment designed to protect the wearer's body from injury or illness
- Use the personal protective equipment provided to you for your work. It's your responsibility to use the required PPE for each activity
- Select the right type of PPE for the job and follow the Wärtsilä/local/customer PPE specifications
- PPE should be maintained in good condition throughout its prescribed lifespan





Stay out from under
suspended load

A suspended load is an object that is temporarily lifted and hangs above the ground. Working or walking under a suspended load is unsafe as the load can fall on you.

Principles

- When you are in charge of the lift you shall isolate the unsafe area and put barriers in place to ensure that nobody walks under a suspended load
- Everyone shall obey the barriers and exclusion zones and never walk under a suspended load
- Follow the instructions of the flagman or the person in charge of the lift
- Use tag line, or push/pull poles, to keep you out of the line of fire when guiding the suspended load





Wear your seat belt and comply with road safety rules

Nearly 1.2 million people are killed **on the road** globally every year. The main cause of these accidents is driver's behavior, like speeding, distracted driving, running red lights, aggressive overtaking, or drunk driving. Wearing a seatbelt can reduce the risk of death among vehicle occupants by up to 50%.

Principles

- Wear seat belts in moving cars, taxis, (mini) buses, trucks, cranes, or forklifts
- Check that your seat belt works properly and that everyone in the vehicle is wearing a seat belt properly before starting to drive
- Always adhere to the set speed limits & other road signs, and consider prevailing conditions
- Maintain a safe distance behind other cars
- Do not use a mobile phone while driving. Any lapse in concentration increases the risk of the vehicle being involved in a crash
- Ensure that the vehicle is equipped with the required safety features and is maintained in safe working order
- Ensure you have a valid driving license for the class of vehicle being operated and to drive in that country, and that you are medically fit to operate the vehicle
- Being under the influence of alcohol or illicit drugs, or misuse of medication while driving is strictly prohibited



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Everyone has the responsibility and authority to intervene and stop work if they observe non-compliance with the life-saving rules or any other unsafe activity – **stop and care.**