

No. Guidelines on safety standards for work

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(Jan 2025)

A. Preamble

Surveyors continue to face significant occupational health and safety (OHS) risks at work. There is growing recognition that some of the safety challenges that surveyors' face would benefit from improved collaboration and sharing of experience to establish a more consistent approach.

Standards and expectation within the safety framework have also progressed and there is a need to review the scope and coverage of the current requirements against the OHS risks with an aim to reduce accidents, incidents, near-misses, injury or ill health to surveyors, associated personnel and damage to property. This would also benefit the maritime industry in establishing uniformity and a consistent approach with respect to occupational health and safety matters.

This document provides the guidelines on safety standards and the precautions to be taken (**DO's**) and unsafe acts/conditions to be avoided (**DON'T's**) for performing surveys, inspections, audits etc. in a safe and efficient manner. The activities and hazards mentioned in this document are not exhaustive, appropriate risk assessment and situational awareness to be exercised prior commencing work.

B. Scope

Applicable to all activities performed by surveyors of classification societies.

C. Normative references

- C1. ISO 45001:2018
- C2. IACS Joint safety Statement on Safety of Surveyors
- C3. PR 37: Procedural requirement for confined space entry
- C4. Rec 39: Safe use of rafts or boats for survey
- C5. Rec 72: Confined space safe practice
- C6. Rec 78: Safe Use of Portable Ladders for Close-up Surveys
- C7. Rec 134: Boat transfers safe practice
- C8. Rec 136: Guidelines for working at height
- C9. Rec 140: Recommendation for safe precautions during Survey and Testing of Pressurized Systems
- C10. Rec 141: Guidelines for the Assessment of Safety Aspects at Workplace

D. Terms and definitions

Incident	Occurrence arising out of, or in the course of, work that could or does result in injury and ill health
Accident	An incident where injury and ill health occurs is sometimes referred to as an "accident".
Near-Miss	An incident where no injury and ill health occurs, but has the potential to do so, may be referred to as a "near-miss", "near-hit" or "close call".
Injury and ill health	Adverse effect on the physical, mental or cognitive condition of a person. These adverse effects include occupational disease, illness and death. The term "injury and ill health" implies the presence of injury or ill health, either on their own or in combination.

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Hazard	<p>Source with a potential to cause injury and ill health. Hazards can include sources with the potential to cause harm or hazardous situations, or circumstances with the potential for exposure leading to injury and ill health. Hazards can arise due to “Unsafe Act” and/or “unsafe condition”.</p> <p>An “unsafe act” is a hazardous activity that occurs when a person ignores or is not aware of a standard operating procedure or safe work practice designed to protect the worker and prevent accidents. An unsafe act could lead to an incident.</p> <p>An “Unsafe condition” is a hazardous Condition/s or circumstance/s that could lead to an incident.</p>
Risk	<p>The “Risk” is the effect of uncertainty.</p> <p>An “Effect” is a deviation from the expected either positive or negative.</p> <p>“Uncertainty” is the state, even partial, of deficiency of information related to, understanding or knowledge of, an event, its consequence, or likelihood.</p>

E. General

- i. All services are to be delivered in a way to prevent accidents, incidents, near-misses, injury or ill health to self and associated personnel and without damage to property.
- ii. Whilst the Surveyors are required to follow the safety, health and environment related requirements at the workplace, they shall verify that minimum safety arrangements are in place as per the guidelines provided in this document. Any lapses which present a potential safety hazard/s are to be brought to the notice of the responsible person at the work site and implementation of corrective measures to be ensured prior commencing work.
- iii. Surveyors are to identify and report accidents, potential safety hazards and incidents arising out of work or during the course of work that could or do result in injury or ill health as per society’s internal procedures.
- iv. Surveyors have responsibility of safeguarding themselves. Surveyors shall not engage in any activity, which they believe to be of an unacceptable risk and shall not volunteer to perform a task that is required to be done by the customer.
- v. Surveyors shall ensure that agreed rescue plan and emergency arrangements are in place and effective prior commencement of work.
- vi. Surveyors shall evaluate the adequacy of lighting and ventilation arrangement prior commencement of work and/or while entering confined spaces.
- vii. **Fitness for Work:**
Surveyors are to ensure that their own health conditions are satisfactory prior attending work and required to undergo medical checkups periodically as per society’s OHS policies and procedures. No survey/audit/inspection to be undertaken by surveyor under the influence of alcohol, drugs or medication that may impact their mental and physical fitness.

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- viii. **Fatigue:**
Fatigue affects mind, body and level of alertness and therefore, human performance can be impaired. The effects of fatigue are particularly dangerous as it can affect health and specially perceived as a contributing factor towards various accidents. It is the responsibility of the surveyors to ensure that they have taken adequate rest and are not fatigued while undertaking any work. Concerns in this regard to be brought to the notice of the immediate Supervisor or Line Manager.
- ix. **Refusal and Use of STOP Work:**
- a. To provide and maintain a safe and secure working environment it is crucial to promote the use of “Stop Work Authority” by Surveyors, whenever health & safety conditions are at risk.
 - b. A Risk Assessment shall be conducted to identify risks and mitigating actions.
 - c. Surveyor/s shall raise concerns and intervene if they believe that surroundings and/or personnel present a situational safety risk at the work site.
 - d. Surveyor/s shall maintain situational awareness of other work being conducted around that may affect safety and stop the work until the safety is brought to an acceptable level.
 - e. Surveyor/s shall reassess the potential safety risks, safety measures and adequacy of emergency procedures in case of any change in scope of work or working conditions.
 - f. Surveyor/s are required to immediately protect themselves, where unsafe condition is perceived or exists, by refusing survey and reporting immediately to the responsible person at the workplace and to their immediate Supervisor or Line Manager.
- x. **Equal access to Facilities at workplace:**
Basic facilities including access to toilets, proper sanitary item disposal facilities, secure shower & changing facilities are to be ensured, including for female surveyors. These aspects shall be discussed and familiarized with the responsible personnel at work site before the commencement of any survey activity.
- xi. **Use of PPE (Personal Protective Equipment):**
- a. Surveyor/s shall use PPE at all times appropriate to the type of work and associated hazards.
 - b. Surveyor/s shall be provided with all required PPE as relevant to the job planned with right specifications and Classification Society must ensure the use of PPE through appropriate training and instructions to their field surveyors.
 - c. PPE shall be inspected and maintained in good condition. Damaged or worn-out PPE shall be removed from service and replaced.

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F. Activities which can expose surveyors to OHS /risks

1. Working at Height
2. Boat transfer
3. Confined Space Entry/Work
4. Surveys by using rafts or boats
5. Witnessing Pressure Test
6. Control of Stored Energy including (Electrical safety risks)
7. Sea trial conditions
8. Travelling for work
9. Travel Safety & Security
10. Work done by Others in near proximity (ex: keep out of line of fire from suspended loads, moving machinery, pressurized systems, transportation hazards etc.)
11. Exposure to Hazardous Materials & radiation
12. Natural environment (Hot, cold, severe weather etc.)

The precautions to be taken (**DO's**) and unsafe acts/conditions to be avoided (**DON'T's**) for performing the survey activity in a safe and efficient manner are enumerated below for all activities which can expose surveyors to OHS Hazards/risks identified in Section F.

F1. Working at Height:

DO's	DON'T's
Plan the work and comply with permits to work as applicable.	Use Portable ladders if not adequately secured.
Check that access equipment, such as portable ladders are safe, well secured, and well-constructed.	Use freestanding portable ladders if the length is more than 5 meters.
Beware of open hatches, missing guard rails and missing sections of scaffolding walkways.	Use crane hoisted appliances during adverse weather conditions.
Maintain three points of contact when climbing or working from a ladder and always use the handrail for stairs.	Use cherry pickers over 17 meters above the tank top.
Ensure that mechanical lifting equipment (ex: crane hoisted basket, cherry picker) are inspected and maintained in good condition and are operated by a trained and qualified person designated by the client.	Overreach while working from a ladder, scaffolding etc.
Confirm that safe conditions are met before working at height. Remove from service and replace any protection systems that are deteriorated, damaged or have been used in a fall from service.	Work at height if weather conditions create risk.
Evaluate the need for special protective equipment such as fall protection devices etc.	Perform climbing or rope access inspections unless properly trained and qualified and Step backwards without looking.
In case of working in a situation where there is a danger of falling into the water, wear a personal floatation device.	Exceed permissible loads or limitations of equipment.

Note: In addition to above Rec 78 & Rec 136 to be referred for more details.

F2. Boat transfer:

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DO's	DON'T's
Plan the work and verify the weather conditions are safe for boat transfer. Boat transfers shall be planned to avoid transfer during the hours of darkness whenever possible. If boat transfers need to be done during darkness, the transfer boat shall be suitably equipped, including an appropriate search lighting system.	Attempt the boat transfer if pilot ladder is in poor condition.
Consider the vessel movement and swell before attempting boat transfer and pay attention to the weather conditions.	Attempt the boat transfer if Pilot ladder is attached to accommodation ladder
Select the transfer boat which is properly operated and maintained. Ensure that emergency equipment is in place on the transfer boat.	Attempt boat transfer if: - Accommodation ladder is too steep (>45 degrees). - Lower platform of accommodation ladder is not horizontal. - Lower platform of the accommodation ladder is not secured to ship's side.
While embarking/disembarking from the transfer Boat and the vessel/offshore unit, put on the life jacket and familiarize with the storage location of life-saving appliances and emergency escape route.	Travel by the transfer boat in adverse weather, such as high wind, rough sea or thick fog.
In the event of emergency during the boat transfer, such as local fire, leakage or other unsafe conditions, report to the crew immediately and follow the emergency procedures.	Push and scramble during embarkation, climb the mast or trespass the rail.
Ensure the transfer boat is adequately manned (at least one crewmember in addition to the helmsman) and equipped to endure the entire duration of the operation including a potential rescue operation.	Initiate the process if medically unfit.
Wear non-slip footwear and ensure anti - skid arrangements at landing point of the transfer boat.	Carry luggage or other impediments during the transfer.
Ensure the boarding arrangement is appropriate for the size of the vessel and safely accessible.	Board if the receiving vessel is unattended at the embarkation point.

Note: In addition to above Rec 134 to be referred for more details.

F3. Confined Space Entry/Work

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DO's	DON'T's
Plan the work and ensure that a valid permit to work by a competent person is in place, and a lookout person is available with adequate communication arrangements. Confirm the scope of re-testing as required.	Enter the confined space without confirming that all energy, machinery, fluids and gases have been isolated.
Ensure personal multi-gas meter is kept on, properly calibrated, and in good working condition prior to entry into any confined space. Verify that planned activities in any adjacent space or connected space will not affect the atmosphere in the space being surveyed.	Be a member of rescue team.
Ensure that an agreed rescue plan and arrangements (e.g. lookout, communication means etc.) are effectively in place prior entry into confined spaces.	Be the first to enter a confined space
Confirm/verify that the space being entered is isolated from adjacent spaces and connected spaces, unless otherwise tested to confirm as non-hazardous. Confirm that a LOTO(Lockout-Tagout) safe-guards have been applied in accordance with procedures.	Be unaccompanied.
Leave the space by the nearest safest route if the multi-gas meter alarm sounds. Ensure that surrounding area is clear of any hazards or obstacles that could impede a prompt and safe entry/exit.	Enter the confined space wearing a breathing apparatus.
Confirm/verify that the access and exit arrangements (including Permanent Means of Access) to and within the confined space are considered safe.	Enter the confined space if there is an unacceptable level of surrounding noise or other work activities such as blasting or welding which could adversely impact effective communication or the safety of those individuals entering the confined space.
	Enter cargo spaces that have cargoes that are oxygen depleting, self-heating, or emitting toxic gases.

Note: In addition to above PR 37 & Rec 72 to be referred for more details.

No. F4. Surveys by using rafts or boats**184**

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DO's	DON'T's
Plan the work and comply with any permits to work confirming that the tank or space contains clean ballast water only	Start or continue in the raft or boats if the fluctuation of the level is greater than 0.25m.
Verify the condition and construction of the raft or boat before starting work.	Use the Raft or Boat on rising or falling water.
Confirm that only rough duty, inflatable rafts or boats, having adequate buoyancy and stability shall be used for survey.	Stand in the raft or Boat or climb on the structure.
Ensure communications are maintained with personnel outside the tank and be accompanied at all times.	Conduct surveys by the raft or boats in tanks and spaces containing ballast water treated with chlorine or ozone.
Verify all hatches are opened to enable emergency escape and emergency plan is in place.	Conduct Surveys of tanks by means of rafts or boats on ships fitted with ballast water treatment system using ozone generators without confirming that an exchange of ballast water has been carried out.
Wear a suitable life-saving flotation device before working on or around water.	Conduct surveys by the raft or boats in tanks and spaces without considering acceptable weather conditions, vessel movement and swell.

Note: In addition to above Rec 39 to be referred for more details.

F5. Witnessing Pressure Test

DO's	DON'T's
Ensure a test plan and safe system of work has been implemented based upon a risk assessment.	Tamper or adjust the fittings or components on a test while it is under pressure.
Verify that calibrated pressure gauges and pressure relief devices are installed.	Approach an equipment under pressure during test until its integrity has been proven and the test pressure lowered back to rated capacity.
Protect yourself from flying objects and the sudden release of pressure.	Enter a safety cordon or test enclosure until the person-in-charge has deemed it safe.
Maintain a safe distance, stay behind a safety barrier and minimise time in close proximity to the test.	Stand close to the hazards or inside the 'line of fire' in case of equipment failure.
While entering locations with a risk of accidental release of pressure, the surveyor shall use safe access and pay attention to safety warnings.	Conduct the test under unsafe conditions.
Ensure test pressure is applied gradually to avoid shock loading of the item under test.	
Pay special attention to areas of "most probable release of energy" (couplings, connections, gaskets, manifolds, etc.).	

Note: In addition to above Rec 140 to be referred for more details.

No. F6. Control of Stored Energy including (Electrical safety risks)**184**
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DO's	DON'T's
Plan the work and comply with any permits to work in place.	Make contact with, or work on live electrical systems.
Treat all systems and conductors as live unless positively isolated, demonstrated to be dead and, for high voltage systems, as earthed.	Remove a tag, lock, or safety device from a system.
Ensure equipment is securely isolated, locked and tagged out or made safe in a way which will ensure that it cannot be re-energised or become live.	Inspect test lines and change wiring while power supply connections are live.
Be aware of arc flash hazards and wear PPE appropriate to the electric hazard.	Enter alone in a high voltage area without being accompanied by a qualified person.
Ensure all energy sources (such as electrical, mechanical, gravity and kinetic) have been identified and isolated/de-energized. Verify that lock out/tag out procedure has been followed.	Operate any electric equipment.
Confirm satisfactory safe working conditions.	Rely on verbal assurance.

F7. Sea trial conditions

DO's	DON'T's
Familiarise with the limitations of the permit or certificate, understand the restrictions imposed, planned activities and sea trial schedule.	Proceed to sea if adequate provision of Life saving appliances are not in accordance with the compliment onboard.
Carry out a general safety walk around the vessel.	Walk around unaccompanied.
Be aware of all emergency signals, emergency arrangements, emergency procedures, muster stations and always stay out of restricted areas.	Conduct sea trial without confirming that essential or critical machinery and equipment for safe operation are installed and operational.
Ensure critical fire safety and lifesaving arrangements are available, tested and operational.	Conduct the sea trial without having approved stability instructions for sea trial conditions.
Ensure that the qualification of the crew is appropriate for a safe sea trial.	
Ensure that medical assistance is available onboard.	

No. F8. Travelling for work**184**

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DO's	DON'T's
Plan your journey so you arrive fit for the task and return home safely.	Use a mobile phone while driving even in hands free mode.
Strictly abide by the local traffic rules and regulations. Drive defensively and courteously.	Drive tired, distracted or under the influence of alcohol or drugs.
Ensure the vehicle complies with local safety regulations & well maintained.	Drive without valid license consistent with the type of the vehicle.
Check the fuel stock is adequate and route is safe. Confirm about the weather condition on the way and of the destination in advance if long range driving is required.	Exceed the specified speed limit.
When renting local vehicles, a company with good reputation to be selected. Ensure that the vehicle condition is satisfactory and all required documentation including insurance and license are available/valid.	Leave the car or attend to a phone call when the car is not secured to avoid theft and property loss.
For long-range driving, a break every 2 hours is recommended for the driver or to follow the local regulations.	Drive if working hours (including the driving hours) are exceeding the limit set by local regulations and/or inducing fatigue.
If involved in an accident, stay calm, get off the car quickly and evacuate from the danger zone and report to the local office as well as the police as soon as possible. Check for any injuries & administer first aid as appropriate. Seek help when required. Record the license plate number of the car and take photos of the site of accident & vehicles involved if conditions allow. After the police or relevant local authorities arrive at the site, do cooperate with them.	Drive without fastening the safety belt throughout the trip for the driver and all passengers.

F9. Travel safety & Security

DO's	DON'T's
Check for any health and security risk associated with the destination.	Leave luggage, laptops, and personal belongings unattended.
Ensure you have all necessary vaccinations and medication prior to travel.	Stand out in a crowd or make yourself a target.
Share your travel itinerary with the company and family.	Take public transportation or taxi at night. Get off or wait at the stop in remote area.
Arrange reliable and secure local transportation at your destination.	Travel by air if same is not recommended by your physician.
Keep all travel documents safe and secure.	Wear or display expensive valuables and be wary of people taking more than a passing interest in you.
Precious articles and important documents shall be carried as hand luggage.	Select airlines with poor safety record, reputation and flight punctuality.
If medicines are required to be carried, ensure that medicine is put in the original	

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DO's	DON'T's
package with label and take a copy of the prescription where necessary.	
Ensure emergency local contact information (including own Embassy contact if in a foreign country) are noted.	
Take note of emergency escape routes from your hotel room.	

F10. Work done by Others in near proximity(eg: keep out of line of fire from suspended loads, moving machinery, pressurized systems, transportation hazards etc.)

DO's	DON'T's
Maintain a safe distance from hazards, ensure you are outside the 'line of fire' and understand the consequences of equipment failure.	Enter a restricted area.
Keep away from suspended loads, unprotected equipment and moving vehicles.	Bypass a safety barrier or enter an exclusion zone.
Be alert to blasting, welding, grinding, painting, electrical work and falling objects.	Start survey when not wearing the required PPE.
Ask for hazardous work to be stopped while performing an inspection in the area.	Work near open or damaged electrical wiring.
Maintain a safe distance from lines under tension such as lifting/mooring lines, towing cables, or suspended loads.	Start survey when the conditions are unsafe.
Make use of designated walkways and safe zones where they are provided.	
In case of emergency, stay calm and obey the instructions of designated persons and evacuate the site in a quick and orderly manner.	

F11. Exposure to Hazardous Materials & radiation

DO's	DON'T's
Plan the work to identify any potential exposure to hazardous materials or radiation (Ex: IHM document, Safety Data Sheets(SDS)).	Handle materials suspected to be hazardous.
Ensure a safe distance from any potential exposure that has been identified and use effective shielding.	Enter a restricted area.
Limit your time near hazardous materials and follow the relevant SDS.	Bypass a safety barrier or enter an exclusion zone.
Discuss the potential for the existence of asbestos and ensure any identified existence is left undisturbed and undamaged.	Go onto the moulding platform for observing in a close distance. Observe the inside of the furnace with naked eyes.

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DO's	DON'T's
	Watch the rising of molten steel at feeder and riser.
Confirm satisfactory safe working conditions.	Stay within 5 meters from the furnace during charging and discharging of hot ingots.
Avoid exposure from radiation, and where necessary, ensure the required PPE for intense light radiation and heat radiation is available.	Carry out surveys or enter or remain in an area where asbestos containing materials are being handled or asbestos removal controls are in use.
When carrying out tests involving high temperature such as burning test, fire test, thermal test, high temperature test, avoid scalding steam or prevent any contact burn. Where any abnormality is found, survey/test shall be terminated immediately.	

F12.Natural environment (Hot, cold, severe weather etc.)

DO's	DON'T's
Check the weather, temperature and humidity conditions before commencing work.	Continue to work if feeling unwell, headaches and nausea due to extreme heat.
Ensure you allow time for acclimatisation if you are not used to working in hot or cold conditions.	Touch cold temperature equipment, specimens, refrigerants with bare hands so as to prevent frostbites while carrying out cold temperature tests.
Keep hydrated and take frequent breaks during hot weather.	Assume that you can tolerate the weather conditions simply because others around you can tolerate.
Adjust your working hours to avoid the hottest/ Coldest times of the day and make yourself aware of the signs of heat exhaustion and hypothermia.	Overestimate your physical stamina.
Ensure you are medically fit to cope with hot or cold environments.	Enter locations containing excessive hot or cold substances or equipments without use of safe access and disregard to safety warnings.
Confirm satisfactory safe working conditions	
When a vessel is operating in waters with a sea surface temperature of 5°C or less, During the Boat Transfer process wear a dry suit or other efficient garment to reduce the likelihood of hypothermia in case the Surveyor enters the sea.	
When entering areas containing high temperature running products, equipment or liable to cause spatter of hot or cold temperature substances, cover the collar and shoe throats to prevent burns caused by such spatter.	

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