



Knowledge grows

Safe by Choice

Golden Rules – Saving Lives Every Day



Introduction

Every day, as we go about our daily work, there is the potential for serious harm to you and your colleagues, employees, contractors and visitors alike.

There is nothing more important in Yara than your safety and of those around you. All safety standards and rules are important in Yara to ensure that people are not exposed to injury.

However, some activities have shown to be of high concern when it comes to serious injury. For this reason we have adopted the Golden Rules which focus on our highest risk activities and summarise our mandatory requirements.

It is important that you make yourself familiar with the Golden Rules and ensure that your actions comply with all the standards that will prevent the potential exposure to yourself and those around you. If you have any doubts about these standards and how they apply to your work, you must stop and discuss your concerns with your supervisor.

Saving Lives Every Day is the responsibility of each and every one of us in order to be Safe by Choice.



Golden Rules

These Golden Rules are the minimum applicable across Yara. Additional Golden Rules may be identified locally.

YARA'S GOLDEN RULES



Working at heights

All work at height shall have a risk assessment and any failure to use of a safety harness when identified shall lead to instant dismissal.



Working with hazardous chemicals

Exposure to chemical risk shall be minimised and where identified in a risk assessment personal protective equipment shall be used.



Working with safety-protected equipment, machinery and control systems

Safety guards and machinery controls shall not be removed without written permission, normally a permit to work.



Working on energised equipment

All energy sources shall be de-energised and locked out prior to commencing work.



Working in Confined Space

All work in confined space shall have written authorization before entry. Isolation from all connecting pipework and energy sources, valid gas tests and a safety watch shall always be present.

Golden Rule 1 - Working at Height



Work at height means work in any place where, if there were no precautions in place, a person could fall any distance liable to cause personal injury. For example you are working at height if you:

- are working on a ladder or a flat roof;
- could fall through a fragile surface;
- could fall into an opening in a floor or a hole in the ground.

Never:

- work on a fragile roof without a secondary control measure that is independent and minimises the risk of human error with personal protective equipment.
- work at height without a safety harness when it is identified in a work permit, risk assessment or standard procedure.
- remove your harness or disconnect from a the safety line when working at height.
- proceed with work if you feel at risk of falling from a distance that is likely to cause you or any other persons working with you. Immediately contact your supervisor.

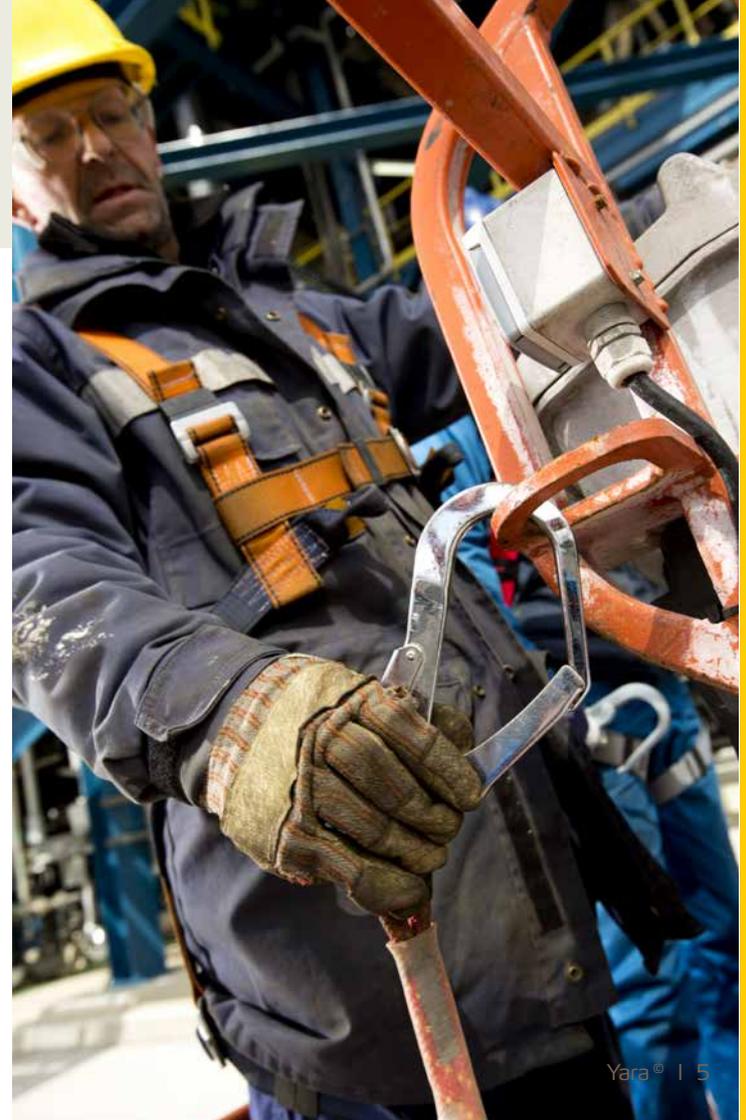
Always:

- Plan properly
 - Think about the work you do and identify all the activities which involve work at height,
 - Don't forget one-off jobs and tasks which only take a few minutes.
 - Don't underestimate the risks, assess them - simply 'taking care' is not enough.

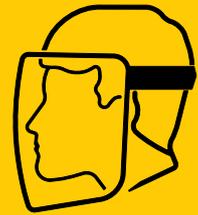
- Avoid 'work at height' where possible
 - Use different equipment or method of work – check what new equipment is available to buy or hire.
 - Think about how fixtures and fittings, plant and services could be designed or installed to avoid the need to work at height
- Select the right equipment and people
 - Where possible, use equipment which prevents a fall, e.g. podium steps, cherry pickers or tower scaffolds, which have a working platform and guard rails – don't manage with whatever is available and inadequate to save money or time.
 - Where ladders are used, use the right type and length of ladder, secure the ladder at an angle of around 70 degrees. Do not over-reach or carry materials up a ladder, use tool belt or hoist line.
- Train those doing the work
 - Check contractors have suitable training, ask to see certificates.
 - Also, train any persons in rescue work for complex work at height
- Inspect and maintain
 - Make sure all equipment is regularly inspected. Damaged equipment must either be repaired or taken out of use.
- Supervise and monitor
 - Check work is being carried out as planned and the right equipment is being used.

Work at height (Systematic Inspection Checklist)

Are the following in place?		Yes/ No
1.	Can the item to be worked on be removed and the work performed on the ground?	
2.	If the work cannot be completed on the ground, can a fixed or mobile platform (with guard or handrails) be used to access the item?	
3.	Does the fall prevention system include all of the mandatory requirements?	
4.	Is everyone involved in the activity trained in the use of the fall prevention system?	
5.	Will all people be hooked to an anchor point at all times while performing the activity?	
6.	Is the rescue plan and equipment in place to minimise suspension trauma prior to commencing the activity?	
7.	Are all items, including tools and equipment, adequately secured to prevent potential dropped objects?	
8.	Has all the equipment to be used been inspected and reviewed?	
9.	If the work is on a fragile roof, is there a secondary control measure, such as a safety net in place. It has to be independent of any people control measures such as procedure and personal protective equipment.	
10.	If people are working on top of trucks, are there sufficient and robust controls in place to prevent the truck from moving when people are on top?	



Golden Rule 2 - Working with hazardous chemicals



Hazardous chemicals are substances in solid, liquid or gas form that can cause harm to people or the environment if exposed. The hazardous classification is determined by criteria set out by national legislation and are identified by properties such as:

- toxic
- corrosive
- irritant
- asphyxiant
- carcinogenic
- flammable
- radioactive, etc.

Never:

- Open a pipe or equipment unless you know what it contains or has previously contained and without authorization by a written procedure or a permit to work.
- Disregard the control measures identified in the risk assessment and the Permit to Work.
- Wear personal protective equipment incorrectly and if it is not suitable or is damaged that could expose you to the hazardous material.

Always:

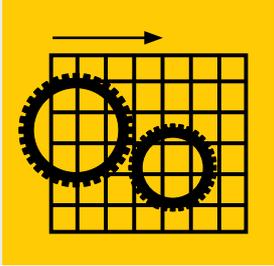
- Ensure you have safety data sheets available for substances used and use the information provided.
- Potential exposure shall be identified and control measures to eliminate or reduce risk to be taken including the use of local exhaust ventilation if appropriate.
- Levels of air borne chemicals shall be below statutory workplace exposure limits. Records of risk assessments and actual airborne chemical measurements to be kept.
- Wear the recommended protective equipment when working with chemicals or breaking into pipelines that have contained them.
- Make sure the equipment and plant has been made safe for you to work on using the Work Permit.
- Always slacken the nuts on flanges on the side away from you first.
- Position yourself above rather than below a joint to be broken
- Carry out instructions carefully when transferring chemicals from one vessel to another.
- Use earthing leads when transferring liquids and gases.
- Keep all chemical substances in clearly labelled, well-sealed containers of suitable construction
- Pipe lines should also be labelled.

Working with Hazardous Chemicals (Systematic Inspection Checklist)

Are the following in place?		Yes/No
1.	Does the pipe or equipment that is about to be opened contain or has it contained hazardous chemicals previously?	
2.	Do the persons undertaking the work understand how they might be harmed if they are exposed to the contents?	
3.	Is there a risk assessment that identifies the control measures to protect from potential hazardous chemicals?	
4.	Is there a written authority, a procedure or permit to work describing how the work can be done safely?	
5.	Are the identified control measures in place?	
6.	Is the correct personal protective equipment appropriate to the chemical hazard identified?	
7.	Is the personal protective equipment to be used/in use, appropriate for the hazardous chemical?	
8.	Is the personal protective equipment in good condition?	
9.	Is the personal protective equipment worn correctly?	
10.	While carrying out the task are all persons positioned so they are NOT in the Line of Fire, even if wearing personal protective equipment?	



Golden Rule 3 – Working with Safety protected equipment, machinery and control systems



Equipment, machinery and plant are designed with safety critical devices that offer protection to people, process or the environment. Examples of such protection devices include (note this is not an exhaustive list):

- physical guards around moving parts
- interlocks on doors, etc. that de-energizes and stops the machine if opened
- alarms and trips on process plant
- pressure relief valves
- protective insulation on electrical cables

Never:

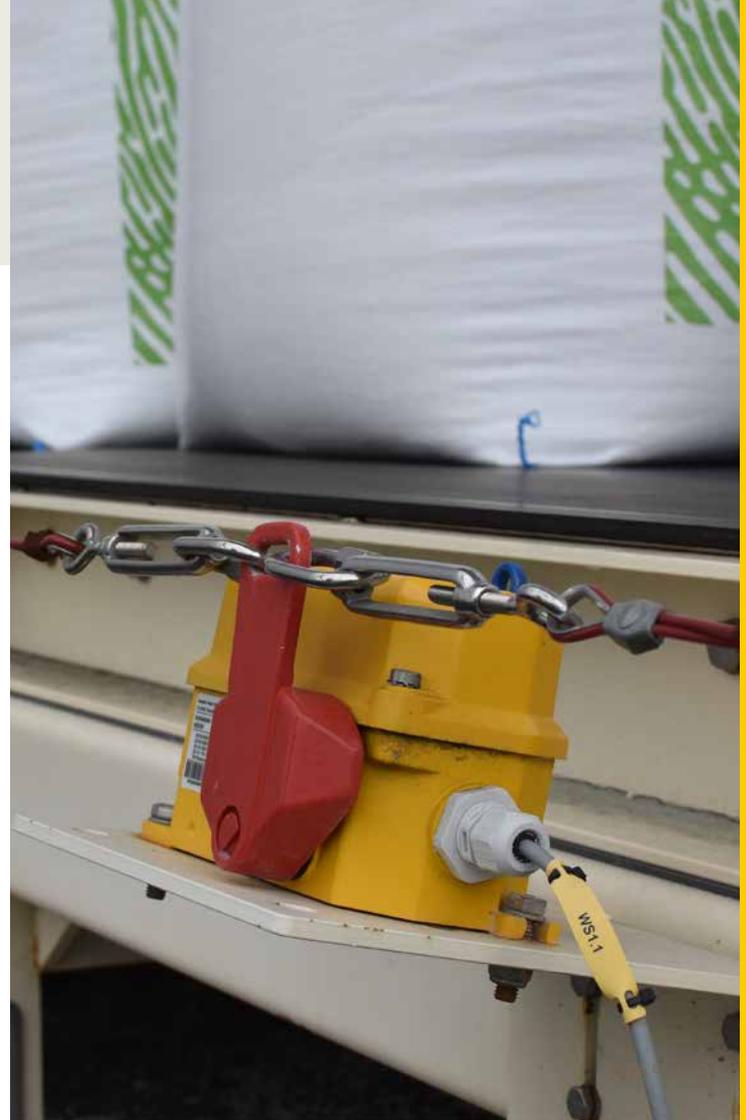
- Remove protective devices without written authorization, such as a Permit to Work.
- Operate or maintain equipment where its safety protection devices are removed or bypassed and with the equipment is still operating. This is not allowed even with a permit to work, unless alternative controls are implemented eg: In the exceptional case of live testing.

Always:

- Report any guards and other safety devices that appear damaged.
- Take immediate action to eliminate potential exposure i.e. with temporary barriers.
- Isolate energy sources and hazards behind the protection system prior to removal of protection system for maintenance purposes. Such work shall be authorized by permit to work.
- For permanent removal of safety protection devices, apply the Management of Change process.
- Maintain a record of any safety protection that is bypassed temporarily and implement a routine inspection to confirm that the alternative controls agreed to minimize the risk are in place at all times.

Working with Safety-protected equipment, machinery and control systems (Systematic Inspection Checklist)

Are the following in place?		Yes/No
1.	The protection devices are free from visual damage?	
2.	Are all moving parts where there is a potential for harm protected?	
3.	Where faults to safety devices are discovered, is immediate action taken to protect against harm? Are permanent repairs, done in the minimum time?	
4.	There is a systematic inspection procedure in place to follow up condition of protection devices?	
5.	Protection devices are only removed following isolation and lock out for maintenance of equipment with a permit to work.	
6.	Are temporary bypasses authorised by the Department Head?	
7.	Alternative controls are put in place to minimise the risk when safety protection devices are temporarily bypassed?	
8.	Where safety devices are temporarily bypassed, the persons responsible for operating the equipment are informed and adequately trained on the alternative control measures?	
9.	A routine is in place to confirm the validity of temporary bypasses and controls with signatures by the Department Head or designated person?	
10.	Where safety protection devices require the use of locks, are the keys to the locks controlled?	



Golden Rule 4 – Working on Energised Equipment



Equipment and machinery is considered to be energized when they are connected to an energy source. Equipment may have a single or many sources of energy. Examples of energy sources include:

- electrical
- mechanical
- hydraulic
- pneumatic
- chemical
- thermal
- gravity
- etc

Never:

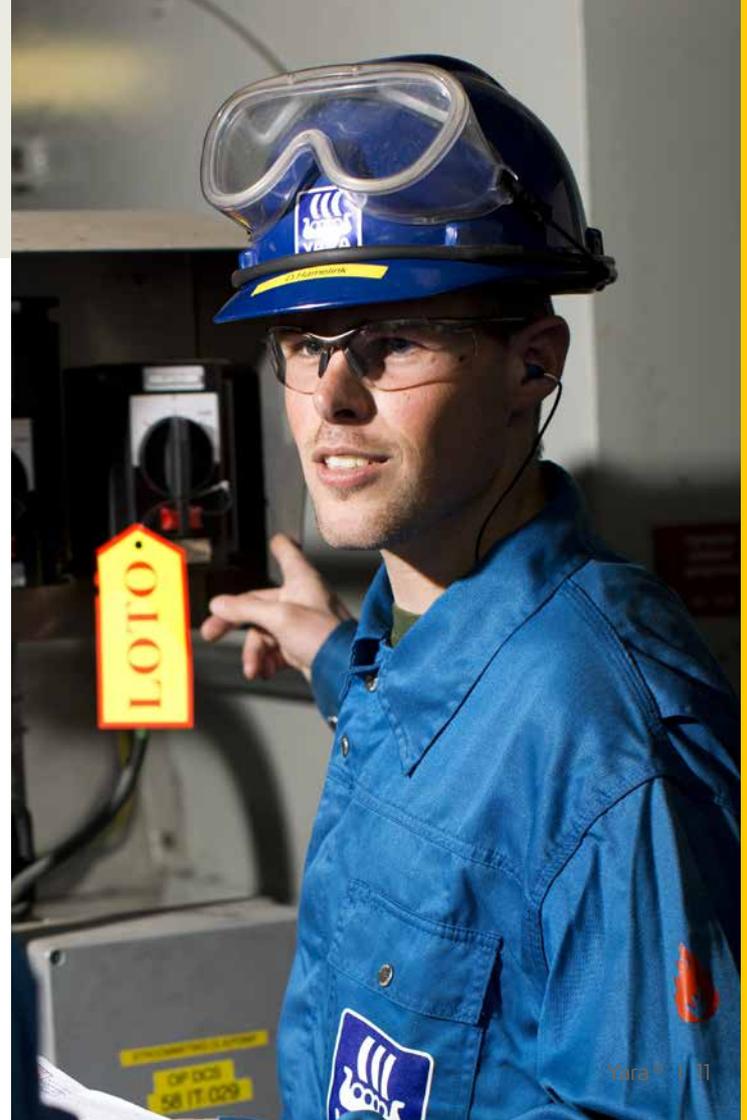
- Commence work without written authorization on a system or equipment that is not de-energized, isolated and locked out/disconnected from the energy sources

Always:

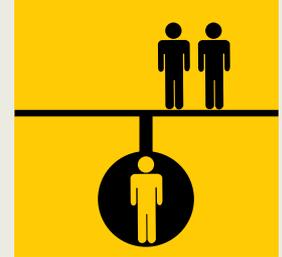
- Eliminate sources of energy by safely releasing the energy in preparation to carry out any work.
- Confirm that all energy is released from all potential sources
- Where appropriate the system to be worked on shall be purged and drained/vented with a non-hazardous material.
- Isolate the system and lock out or physically disconnect all potential sources of energy.
- Commence work with written authorization via a permit to work or an approved procedure
- Be aware of the presence of any residual or latent energy in the system. Follow the control measures identified in the risk assessment, permit to work or the operating procedure.
- Follow the control measures identified for fault finding on live electrical systems. Such work shall only be completed by competent nominated person in control of electrical installation.
- Position yourself and others away from the line of fire when opening a system that has previously been energized, in case of any residual energy.

Working on Energized Equipment (Systematic Inspection Checklist)

Are the following in place?		Yes/No
1.	Is there a plan for the sequence of isolation and de-isolation that is approved by a competent person?	
2.	Has a risk assessment been conducted and has it identified all potential energy sources?	
3.	Has the isolation been carried out by a competent and authorised person?	
4.	Have the isolation points been clearly identified and controlled using an appropriate system, such as lock out, blinds, disconnections, etc.?	
5.	Prior to breaking containment, has a test been conducted for residual energy?	
6.	Are all persons involved in the work activity aware of the potential residual stored energy?	
7.	For electrical work, are the persons involved competent?	
8.	Has there been a test to confirm that the electricity is 'dead' prior to commencing work?	
9.	Are control measures for any live working clearly identified, communicated to, understood and being applied by those involved in the work?	
10.	Are all the control measures being applied as identified in the permit to work to protect against residual energy?	



Golden Rule 5 – Confined Space



A confined space is a place which is substantially enclosed (though not always entirely), and where serious injury can occur from hazardous substances or conditions within the space or nearby (e.g. lack of oxygen). Examples of confined spaces include, but are not limited to:

- tanks
- silos
- vessels
- enclosed drains
- sewers
- open topped chambers
- ductwork
- mobile containers, etc.

If in doubt, check with your local Safety Department

Never:

- Enter a confined space without a valid written permit to work authorization and without the presence of a competent safety watch.

Always:

- Have a risk assessment when working in a confined space with identified control measures in place.
- Give consideration, whenever possible, to the work being completed without entry.

- Appoint a supervisor with the responsibility to ensure the precautions identified are taken.
- Have persons working in the confined space that have experience of working in confined spaces and competence in the work to be undertaken.
- Isolate the confined space from all process connections and energy sources.
- Clean the confined space prior to entry to prevent exposure to any hazardous chemicals
- Provide access that is large enough to get a person in and out wearing breathing apparatus.
- Have sufficient ventilation.
- Test the atmosphere for oxygen content, flammable vapours and hazardous gases.
- Adequate lighting shall be provided by extra low voltage equipment (<50VAC)
- Electrically powered tools shall be battery powered or supplied by an isolation transformer
- Wear breathing apparatus if the air in the space is not suitable to breathe. Never 'sweeten' the air in a confined space with oxygen as this can increase risk of fire.
- Have a rescue plan in place in the event of an emergency.
- Establish a communication system with the safety man who should remain at his post at all times

Confined Space (Systematic Inspection Checklist)

Are the following in place?	Yes/No
1. Has an assessment been made to determine if the work can be completed without entry into the confined space?	
2. Is there a valid risk assessment, permit to work and a rescue plan?	
3. Have the conditions of the work permit and risk assessment been communicated to everyone involved?	
4. Are the appropriate controls and isolations in place and verified?	
5. Is the equipment to be used to perform the work approved for use in confined space and identified in the work method and or permit to work.	
6. Has the initial atmospheric test been completed and verified?	
7. Are those working aware that re-testing is required throughout the activity as indicated in the work permit?	
8. Is atmospheric retesting conducted at the identified frequency?	
9. Is there a safety watch person outside the confined space while there is activity ongoing?	
10. On temporary stop of the work or completion is there a plan in place to secure and safeguard the confined space to prevent unauthorised entry?	



Golden Rule, Frequently asked questions

Our National legislation defines working at height to be greater than a specific height but the Golden Rules refers to any height that could lead to an injury. Which should we follow?

National legislation shall always be complied with, as it forms part of our license to operate. Yara recognises that falls from distances below National height limits also contribute towards serious accidents. This doesn't mean Yara is expecting people to wear safety harnesses for everything but there is the expectation that risks are assessed and appropriate control measures applied.

When using fall arrest equipment to reduce the severity of a fall injury, we rely on external emergency services as part of our emergency response plan. Is this still ok?

There is a significant trauma risk to a person suspended at height (i.e. hanging in the air by the fall arrest equipment). Rescue plans should ensure a person is recovered as soon as possible and within twenty minutes from the time of the fall. Due to unknown factors influencing external services, it is preferred that rescue plans use internal competent resources.

We follow the personal protective equipment recommendations within safety data sheets for substances that we use. Is there anything else we should be doing?

A risk assessment should be completed to determine the hazards and risk exposures for each task, to ensure appropriate control measures are applied. There may be additional personal protective equipment requirements considering the task, location and other operations in the area.

Within operations we regularly drain and vent process lines as part of normal work but there's no procedure available, what should we do?

Using people with appropriate competencies, undertake a risk assessment to determine the necessary control measures. These are then to be implemented through task based working procedures, training, behavioural observations and equipment inspections etc. (non-exhaustive list).

Routine cleaning in the plant requires some guards to be removed and the work is usually controlled under a permit. If a guard was removed without authorisation, is this considered a Golden Rule breach?

Yes. The rules are there to prevent exposure to potential high severity injuries. Through consistent compliance with the Golden Rules, we will reduce the risk of exposure to high potential situations and substances. The rules are non-negotiable and are there to protect and are not there just to punish.

Before obtaining a permit the maintenance team need to check the equipment to be worked on. Is it ok for them to do some simple checks providing they make local isolations?

Where it has been determined that a permit to work is required, no physical work shall commence until the permit has been authorised and issued. No guards shall be removed, no electrical testing is to take place or no other physical process system checks or alterations shall be made in the field until the work is authorised. Deviation from this standard is considered a breach of the Golden Rules.

There's a vessel that will be open for a prolonged period of time during our turnaround and involve some confined space work. How should we prevent unauthorised vessel entry, when a confined space permit is not live (i.e. overnight)?

Physical barriers and clear signs shall be placed at possible entry points into confined space to both prevent access and warn of the risks.

We've detected a breach of a Golden Rule. What is the expectation with regard to disciplinary action?

The local disciplinary procedure should be followed starting with a collection of all of the facts.



Want to find out more?

If you have any doubts when working with the Golden Rules activities, do not commence work, stop if you have already started and immediately contact your supervisor.

A breach of a Golden rule is serious and will put your or others lives at risk and will result in a disciplinary investigation.

