Security manual

Safety - Health -Environment





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1 FORWORD FROM HD 'S HSE AND QA DIRECTOR

Your safety is important to me!

Our employees are the resource that motivates us and reflects the values we set and operate by:

Respect- Collaboration - Ethics - Professionalism

By giving yourself the time to read and possibly point out what we can do better, you are exactly the kind of person we seek out to have in our team.

A team, that works continuously on improvement in health and safety, of their immediate environment.

We organise work according to our goal that everyone returns safely home at the end of the day. We do this by being alert to what matters, let other know what it is, how we do it and why.

As any professional knows, it is better to stop and-think, analyse and plan ahead: get things right the first time round, than to rush off half handing and having to fix what went wrong. That is why we prefer defined processes for our work.

Purpose of HD SHEQ policy

With this policy HD strives to ensure continuous improvement in SHEQ matters.

We see it as our duty to provide employees and customer with a safe and healthy work environment in the most efficient and best possibly way.

We place great emphasis on collaboration to achieve the optimal solution for all parties.



Responsible parties

- The board of directors is responsible for the SHEQ policy
- The SHE and Q directors are responsible for the implementation of the policy
- The SHEQ committee is responsible for reviewing all deviations of the policy
- All employees are responsible for following procedures according to the policy
- Project managers are responsible for promoting and familiarize contractors of the policy
- Business partners and contractors are responsible for following procedures according to the policy

2.1 SHEQ policy

- Ensure the safety and health of all parties that have access to the workplace
- Minimize negative environmental impacts of business activities.
- Always comply with the requirements and expectations of customers and employees of professionalism
- Ensure that legal requirements related to business activities are followed
- Work towards continuous improvement of management systems, with the aim to maximize:
 - quality of the goods and services that the company provides.
 - safety and health conditions in the workplace.
 - ergonomic in environment management
 - partnerships that lead to efficiency in management and production

2.2 SHEQ goals

- Always fulfil customers and employees demands and expectations of professionalism
- Be the benchmark in the work field
- Apply official methods in Safety and Quality Management in which all employees are actively engaged in continual improvements.
- To encourage, promote and maintain professional expertise among employees.
- Keep the flow of information at an optimum level.
- To provide employees a good and safe work environment and support their initiatives.
- Conduct all processes so that the safety and health of customers and employees are ensured in the most effective way.
- All actions taken to secure health and safety in the workplace take priority over ordinary work.
- Zero accident.

3 RESPONSIBILITY AND COMMITMENT

3.1 Safety committee

The committee strives to ensure a safe and healthy working environment in line with social and technology developments. It sees to it that conditions comply with the companies SHEQ policy as well as the legislation. The director summons the committee every other week revising all tips and SHEQ matters that have been brought to attention.



3.2 Employer's obligation

Guarantee optimal safety, good facility conditions and health customs in the workplace thus fulfilling occupational Safety and Health regulations.

Present risk of accident and health hazards related to specific jobs.

Employees should receive education and necessary training to eliminate procedure related risks.

Follow law and regulation requirements. Communicate information to Employees Safety Representatives (WSR) and the Administration of Occupational Safety and Health (AOSH).

Active participation in committee work regarding safety matters. Abide by obligatory information and announcement duties.

Guarantee that implemented changes to work conditions, new technology, new equipment or other outside circumstances, are in accordance with regulations concerning conditions, health customs and safety arrangements.

Regularly assess the conditions of the workplace to guarantee that it is in accordance with regulations concerning conditions, health customs and safety measures.

Organize work processes: training and knowledge of employees along with other organizational factors make the workplace safer.

Encourage experienced employees in SHE matters, to be encouraging and lead other employees in the work place to follow Hamar's SHEQ-policy.

Report as quickly as possible to the police and the AOSH accidents or other risks that materialise in the workplace.

Serious accidents causing injuries which could lead to long term health problems must be reported immediately.

Other accidents must be reported to the AOSH on a special form if they cause absence for at least one day in addition to the day of the accident.



3.3 Foreman's obligation

The foreman plays a key role in regulating work methods in accordance with safety demands. A foreman is the employers representative in the work field. As the employer's representative, the foreman is responsible for communicating information and on site documentation.

A foreman must:

- Make sure that all equipment is approved and that a safe work method exists.
- Participate in teamwork aiming to increase safety and better conditions and health customs in the workplace.
- Apply himself to make work conditions, satisfactory in terms of conditions, health customs and safety.
- Ensure that employees have the necessary education, training and knowledge over appropriate handling of dangerous situations

If a foreman becomes aware of a risk, which could lead to an accident or disease, he must guarantee that the risk is eliminated. If means to eliminate the risk are unavailable, he must immediately notify the employer.

3.4 Employee's obligation

All employees must know and understand the instructions of this safety handbook and follow them including other safety regulations from clients.

Employees should be promoted to ensure that their field of work meets the SHEQ standard. Measures, taken to ensure SHE, must always fulfil law and regulations.

In the case of an incident, where a flaw or inadequate setting, leads to reduced SHE the employee who becomes aware of this must correct the situation. If he/she cannot amend the situation, the employee must immediately report the incident to a safety representative, security representative, foreman or employer.

If safety shields or other compatible items need to be removed due to repair or installation of equipment, he who carries out the work must upon finishing the work, replace the safety equipment immediately afterwards or make other equivalent arrangements.



When an employee is dispatched to a facility other than his/her normal work environment, the SHE regulations in the new facility must be upheld as well as following SHE standards set for the work being carried out.

If an employee considers procedures to eliminate accident or disease risk insufficient, he must refer the matter to the safety committee or a safety representative. Alternatively, is noted to the AOSH.

An employee must never take on a project without sufficient skills and understanding. He must receive instructions from his foreman.

Employees are obliged to participate in the collaboration about safety- and health matters within the company which is described here in duties of a company, i.e. elect their safety representative.

The duties of employees are limited to narrower areas than the duties of management and concern especially their own work and workmanship.

Employees are obligated to follow safety regulations whether they are set by the company, public supervisory institutions or ministries.

All accidents and near accidents must be reported even in the result of no damage.

Where there is danger of meeting moveable objects, employees are prohibited to wear loose clothing, necklaces, rings or bracelets (unless they carry emergency information). Employees with long hair must take appropriate actions to protect their hair.

If an employee has a pacemaker or any other electrically driven transplant he/she is to make it known to their employer.

3.5 Safety behaviour

Games, Greeks, scrimmage, or violence of any kind that disturb or surprise prohibited.

Any kind of service, in the name of the company, that violates Hamar's values is strictly forbidden.

Respect - Collaboration- Ethics - Professional							
We show co-workers and clients repsect in all our communication	We take informed decisions in collaboration with relevant stakeholders	Our business practices should reflect equality and abstract morality	Professional practice ensures customer and business expectations and requirements	Personnel may not accept gifts in cash equivalents such as credit cards, gift cards or cash			

3.6 Safety committee

The safety committee endeavours to guarantee a safe and healthy work environment which is in accordance with social and technical developments in the society at all times.

The safety committee ensures that within the company conditions to solve SHE issues are in accordance with current law and regulations. Procedures take into account advice from the labour market and the AOSH.

Each annual quarter, with added frequency when needed, the safety committee holds meetings reviewing all safety related issues, advice and other matters related to SHE.

Keep in mind that all suggestions are welcome and greatly appreciated.

3.7 Worker's Safety Representative - WSR

Is elected by fellow workers and is their safety representative in the work place.

All general employees are eligible for the position and shall put it to a vote. Personnel that hold a position with manpower are not eligible and cannot participate in the voting for a WSR.

The AOSH is to be notified of the results with a formal document provided by the AOSH. If employees do not vote for a safety representative, HD can appoint an employee for the position. The Safety representative is elected for a minimum of two years at a time.

3.8 Employer's Safety Representative - ESR

Employer's Safety rep. is

- A representative of the company and appointed indefinitely by the company.
- Responsible for safety monitoring, training and education.

3.9 Responsibilities of safety representatives

The representatives (WSR + ESR) must monitor SHE conditions in the workplace, and jointly ensure that guidelines from the AOSH and the company are being abided.

Patrol the work areas, check machines and equipment, dangerous chemicals and oversee that work procedures do not endanger the life and health of employees.

Mind the condition of safety equipment and personal protective gear.

See to it that all employees receive the appropriate training and education in relation to health customs and safety.

Follow up and ensure correct documentation of SHE deviations.

Know the rules and requirements for the execution of Hamar's safety, health and environmental plan.



3.10 Smoking, alcohol and drugs

Any alcohol and / or drug use without a doctor's prescription, is completely prohibited in all workplaces.

Violation of the abovementioned regulation can result in immediate resignation or dismissal from the work area.

Employees working in heights or other hazardous situations must inform his foreman if he/she is taking prescription drugs that might cause dizziness.

HD reserves the right to perform an alcohol- and drug test without prior notice.

Smoking is prohibited in all of Hamar's offices, workshops, work facilities, cafeterias and vehicles. Smoking areas are specially designated with no risk of second hand smoke to third parties.

Smoking is prohibited near flammable chemicals.

3.11 Notification of nonconformity

All employees and contractors are required to report any and all incidents which result or may result in injury.

All notifications shall be submitted electronically using the online form available to all on the company's website: www.hamar.is.

All tips and notifications that HD receives are analysed by HD SHEQ committee and used to improve SHEQ. The following list gives an idea of what should be notified. Keep in mind that notifications are not limited to this list!

- Praise Tips on best practices, someone is exemplary
- Accident injury and / or damage to equipment
- Near accident incident regarding: conditions, risk assessment, behaviour, equipment
- **Complaint** from a co-worker, customer, you?
- Tip a proposal of what can be done better
- Suppliers- delivery is not according to schedule, quality, cost you suggest we get another supplier?
- Work supervision there is a lack of internal audit, review, onsite supervision
- Work execution unsatisfying / incomplete workmanship
- **Production** faulty production, defective product, equipment performance failure
- Design missing / incomplete design documents, drawings. Changes in design criteria
- **Purchasing** incorrect procurement, wrong resource order
- Material receiving- not confirmed with purchase order slip, unspecified final destination and / or to whom
- Approval Price offer / drawings / reports / audit / bid documents are missing final approval or lack review

4 PERSONAL PROTECTIVE EQUIPMNET -PPE

HD provides all general protective equipment that is required for work. The onsite foremen and safety representatives must always ensure that employees have access to appropriate personal protective gear.

It is strictly prohibited to:

Modify, cut out or in any way tamper with PPE, unless it is specifically instructed to be safe by the PPE manufacturer. All and any changes to PPE must be approved prior to use, it is each and everyone's responsibility to check their own PPE prior to every use.

If an employee is in violation of the above mentioned, HD reserves the right to refuse and / or have a third-party to review any claim to accident benefits, sick days, personal injury or other claims that are the result of the employees conduct.

4.1 Work clothes

Employees must wear approved clothing provided by Hamar. Employees are responsible for wear and tear and must inform their supervisor if they need renewal.

4.2 Safety helmet

It is mandatory to wear safety helmets in all workshops and construction areas. Areas where there is not a requirement to wear a helmet are specially marked.

4.3 Safety shoes

It is mandatory to wear safety helmets in all workshops and construction areas. Safety shoes must have steel toes and protective soles. Worn safety shoes must be checked and replaced before they lose their safety value.

4.4 Hearing protection

You must wear hearing protectors or earplugs when entering any of Hamar's workshops or construction areas.

When hammering a steel plate, the noise level in a 1m radius can reach up to 160 dBA. This can cause permanent hearing damage.





IF YOU DONT PROTECT YOUR NOODLE!

4.5 Safety goggles

All who enter our workshop must wear safety goggles . This applies to employees, contractors, clients and all other personnel that are granted permission to enter the work area.

Minimum safety requirements

Safety glasses must meet EN166 F standard, protection against high-speed particles and minor impact. Safety glasses with dark lenses are allowed when working in strong sunlight.

Glasses with dark lenses are not allowed when working inside. This also applies to other types of glasses such as personal prescription glasses that limit light sensitivity.

Employees that must wear prescription glasses must use one of the following options:

- Protective goggles over their glasses. HD provides this option at no cost for the employee.
- Prescription safety glasses with side protection that fulfil EN 166 standard or compatible requirements. You can apply for a financial grant from your union as well as from HD for this option.

Remember, work conditions can vary greatly and safety glasses to not always fulfil safety requirement. In many cases you will need full facial shield such as when grinding and a welder helmet for all weld work.

If you must use prescription glasses make sure they fit well behind facial shields, masks and weld helmets.

Working in a high dust area

You are not allowed to use contact lenses in work areas that are in risk of high dust. Particles can get behind a lens and cause permanent damage to your retina. Always use safety goggles, which are sealed, to prevent fine dust from your eyes.

4.6 Facial shield

Always use facial shield when grinding, regardless of time or work quantity.

4.7 Welding helmet

You must wear a welding helmet for all weld work.

4.8 Dust masks and respirators

Make sure you use the appropriate respirator when working in a confined space or if you are working with hazardous fumes. Always confirm that you have the correct respirator and monitoring system before you begin work.

Where there is a lot of dust and / or other airborne pollutants are present you should wear dust masks.

4.9 Safety gloves

Always use protective gloves when handling materials with rough surface or sharp edges.

Always use approved welding gloves for weld work.

Use approved rubber gloves when working with corrosive materials

4.10 Screens

You must set up welding curtains / screens when you are working, near walkways and / or close to other workers.

Make sure that there is no risk that other people get exposed to the light from the welding arch.

4.11 Fall protection systems

An area that has a raised floor, open-sided floor, mezzanine, gallery, balcony, work platform, ramp, walkway, or runway and is above 180cm (6ft) from the adjacent floor or grade level must have a standardised guardrail.

Guardrails must consist of a top rail, intermediate rail, and posts, or equivalent, ath the vertical height of 95cm to 120cm(4ft)

When working above others, always make sure that the people below are not in any danger of being struck by a falling object. Assess if there is a risk that others might have access to the area below and put up appropriate notifications to let others know of your work

Always use fall protection equipment when there is a risk of falling and when working 1.8m (6ft) above ground level.

Site Supervisors and Foremen must ensure that their workgroups have received appropriate training in installation and the use of fall protection.

You are at great risk of falling when work conditions may include the following:

- Near unprotected open floor areas and roof edges
- Near unprotected holes and gaps
- Close to unprotected ditches, foundations, corridors and elevator openings.
- When working on uncompleted unites (like uncompleted work platforms).
- When working on slippery/ crisp surfaces (like stone tiles, fibre rooftops and window ceilings).

Use anchorage points to attache your harness-lifeline.

Make sure to check against the manufacturers manual what the minimum length, between the ground floor and anchorage point should be. This varies between type's and manufacturers of lifeline and harness equipment.

If you need more details, instructions or guidance regarding the use of harnesses contact your supervisor or Hamar's safety committee via email or our website: <u>ohug@hamar.is</u> / <u>www.hamar.is</u>

Harness equipment is an employees PPE and he / she is responsible for checks and maintenace, before and after each use. If you notice that your fall protection equipment has become damaged or faulty in any way you must not use it, remove it immediately from service and get new equipment from your supervisor.



Falling in a harness, that has not been properly adjusted, will cause incorrect weight distribution. This can result in serious permanent damage to the spine and genital area. Always have someone else check the adjustment of your harness before you start working.

Always check the condition of your harness, lifeline and anchoring point before each use. Follow these steps when putting on your harness.

- 1. Unbuckle straps and hold the harness by back D-ring. Shake Harness to allow all straps to fall into place. Slip straps over shoulders.
- 2. Make sure the D-ring sits in middle of your back between the shoulder blades.
- 3. Fasten the chest strap.
- 4. Adjust the chest strap. It should sit across the upper portion of the chest halfway between the nipple line and collar bones.
- 5. Pull the legstraps forward and buckle them. Make sure the straps sit firmly under under the buttocks.
- 6. Adjust the legstraps. The appropriate amount of slack should fit a sleek hand but not a clenched fist.

Remember the 3-point rule:

An employee must always have three points of contact when using stairs and / or ladders.

5.1 Ladders



Make sure your ladder is long enough for the job! You should never have to stand in the top two steps.

Ladders that are used near electrical conductors must be made from insulated materials

Ladders must be free of oil, grease and dirt. The same applies to gloves and the soles on the employee's shoes.

The ladder must rest on a stable surface that supports both legs of the ladder.

L	Horizontal distance				
of Ladder	$\frac{1}{4} imes L$	$\frac{1}{3} \times L$			
4 m.	1,0 m.	1,3 m.			
6 m.	1,5 m.	2,0 m.			
8 m.	2,0 m.	2,7 m.			
10 m.	2,5 m.	3,3 m.			
12 m.	3,0 m.	4,0 m.			
14 m.	3,5 m.	4,7 m.			
15 m.	3,8 m.	5 <i>,</i> 0 m.			

You should always be facing the ladder when climbing up or down.

Never use a ladder in a horizontal position, on scaffolds, lifts, or on unstable platforms or near doorways where there is a risk of a door opening onto the ladder.

Never connect two ladders together.

All damaged ladders should be taken out of service. Notify you supervisor when you take a ladder out of service.

5.2 Stairs

Stairs that are used near electrical conductors must be made from insulated materials. Stairs must be free of oil, grease and dirt. The same applies to gloves and the soles on the employee's shoes. Notify your supervisor if stairs are damaged and take them immediately out of service.

Always make sure that the stairs are locked in a fully open position and that all legs rest securely on a stable surface.

5.3 Scaffolds

Always inspect scaffolds before installation and use. Do not use different types of scaffolding; make sure that all parts are intact and fit properly. Scaffolds that appear damaged or impaired replace must be replaced before installation.



Use appropriate fall protection when installing or uninstalling scaffolding components.

Check the floor area of the scaffolding platform. It should cover up all gaps, be even, stable and non-slippery.

Always make sure that the ground, which the scaffolding is standing on, is stable and secure. Make sure that the scaffolding doesn't wobble or is at risk of sliding on the surface.

Handrails must be on all levels of scaffolding. If work requires you to remove handrails you must use your PPE (harness + lifeline).

Scaffolding with undercarriage must have locks on all wheels. Make sure that all wheels are locked when you use the scaffold.

6 WORKSTATION

6.1 Property lot and work areas

Work areas, within workshops and on surrounding property must be kept free of debris and waste materials. Always make sure that ambulances and fire trucks have easy access to / from the premises.

6.2 Floor

Floor must be maintained in good condition, free of debris. Always make sure that there is never any equipment lying around on designated walk areas or hindering access to / from workstations.

If there are openings in the floor, appropriate action must be taken to eliminate accidental falling. Fence off area or, use plates to cover opening, make sure that plates can withstand necessary load and stress or, put up guards to hinder access

6.3 Passageway

Passageways, ports, and pedestrian walk paths in the workshop areas must be kept free of debris and equipment. Always make sure that walk paths are non-slippery and clearly marked or sealed off from work areas.

6.4 Workstation

Keep your workstation clean and tidy. Make sure that everything is in its place at the end of your shift.

6.9 Waste material

All waste is recycled, and sorted into separate containers for:

- Paper
- Plastic
- Cans and bottles
- Organic
- Metals
- Hazardous / toxic waste

6.5 Clean up

Make sure that your work station is cleaned up at the end of each shift. Place equipment in its rightful place and sort waste materials for recycling. Canteen areas must be cleaned daily.

6.6 Compressed air

It is strictly forbidden to use compressed air to dust off work clothes or cleaning floors.



6.7 Storage

When storing material or equipment make sure that it does not obstruct walkways, exits or access to emergency equipment such as fire extinguishers / hoses, electricity boards, first aid cabinets or emergency showers.

6.8 Finishing

At completion of a work task make sure the area is cleaned and store away signs, barriers, screens or other equipment that no longer belongs on the site.



Clean up - All waste materials are sent to an approved recycling centre.

- Smaller debris such as paper and smaller plastic materials etc. are promptly put away in appropriate containers.
- Hazardous waste, for example, batteries, oil, oil contaminated material, solvent and paint is put in locked containers for "Hazard materials" (Icelandic "Spilliefni").
- Open containers that are kept in workshops or in canteen areas are clearly marked making it easy to dispose of
 debris in the correct container. Open smaller containers in workshops are emptied as needed into larger
 containers kept outside on the company's lot. Open containers that are in canteen areas are emptied daily.
- Large locked containers for waste materials are regularly sent to an approved waste recycling facility. Separate locked containers are for timber, metal, hazard and organic waste.

7 WORK ING CONDITION AND EQUIPMENT

7.1 General equipment and devices

Always check the condition of the equipment you are about to use prior to starting your work. If you notice any failures or damages notify your supervisor!

Do you need to tag it?

Use tags, green, red or orange to identify the equipment you checked.

- RED equipment that does not go to storage but must not be used: is faulty, needs repairs or is to be thrown away.
- Orange Equipment that is stored onsite not to be used, for example stored in our workshop for a client or waiting for other parts that are to be delivered at a later date.
- Green Equipment that need regular detailed inspections and overhauling for example every 3 months or annually.

7.2 Lockout/ Tagout-Verify (LTV)

If you are about to work on mechanical equipment that has moving parts make sure you turn off / disconnect fuses to ensure that there is no risk that it will accidentally start up while you are working.

Make sure that there is no risk of a third party accidentally turning the equipment back on. Follow Lockout/Tagout Verify procedures or have a co-worker on standby to make sure that equipment isn't turn on while you work.

LTV - Lockout equipment so that a third party can not accidently turn it back on, Tag equipment so people know who is working with it, verify that the system is properly locked out.

7.3 Equipment tests

When testing equipment, make sure that you have adequately fenced off or restricted access to testing area so that there is no risk of third party accidentally entering test area.

7.4 Electricity

Electrical contractors must operate under approved safety systems for electrical work.

All electrical work must be done by a certified electrician.

When working near ground cables make sure that appropriate pre-emptive measures are taken to prevent risk of electrical burn/ shock. Make sure that materials and work clothes do not conduct electricity. Do not work near cables that are torn or faulty unless you have made sure that there is no current and that they are grounded.

All connections to the electrical distribution system must be carried out in full cooperation with the relevant energy company.

All electrical equipment must be grounded unless they are powered by batteries.

When conducting work with electrical equipment, it must be sheltered from bad weather and on dry surfaces.

Welding Work must be arranged so that the welder avoids contact with the voltage section. The welder must wear dry welding gloves and safety shoes with rubber soles. If a welder must work in a humid environment, it shall be in an upright position and standing on a dry platform.

7.5 Compressed air or gas container

Pressurised containers may only be used in upright and secured position so that there is no risk of them falling. Make sure that they do not come in contact with flame or sparks, fence them off necessary.





Make sure that valves are closed and always use racks for transportation of containers.

Make sure that containers are kept away from heat sources; they must never heat up to 50°C. Overheated pressure containers are at risk of exploding that can lead to sever damage and fatal injury.

Damaged, torn, dented, rusty or otherwise impaired containers must be taken out of commission and returned to supplier without further delay. This applies as well when valves do not fit correctly or become stiff (i.e. you need a tool to unlock / lock properly).

Pressure containers, which are not in use, must be kept in an upright position away from heat sources and flammable materials. Always make sure that there is no risk of them falling.

Propane bottles that are not in use must be securely stored outdoors.

When lifting a pressurised bottle always make sure that it has a protective cap and never hold it the bottle neck unless it is designed to do so

7.6 Hot water and steam

When working with hot water pipes or steam pipes you must wear rubber boots, long sleeved gloves to prevent hot water burns.

Never leave hot water running without supervision, make sure that flow is turned off before leaving the workstation.

Hot water can cause sever burn injuries.

7.7 Radiation

Electric arc welding and cutting processes produce three forms of radiation; ultra violet (UV), visible and infra red (IR).

Always wear your welder helmet for all weld work and protect third parties from risk of eye injury by fencing off work if work is near walkways or other unrelated work.

7.8 Noise

The noise level can reach up to 160 dBA, when hammering a steel plate. Anything above 120 dBA can cause hearing damage, even if the noise is short term.

Be aware that in our workshops noise levels can be very high. Exposure to high noise levels can result in permanent hearing damage, so **please respect our absolute requirements for hearing protectors or use ear plugs inside our workshops and at our construction sites.**

Be aware of these risk factors when working a high noise level environment:

Communication problems – make sure you have eye contact when talking together or go outside the workshop if you need to talk.

You might not hear if the emergency evacuation alarm goes off - be aware of surrounding workstations and light signals.

Horn sound from a backing lift / truck might be hard to detect – Never stand or walk behind any vehicle

Constant noise irritation can increase physical stress and thereby it increases the risk of mistakes.

7.9 Confined spaces

Confined space is defined as a space that is partially or fully secluded:

• Has been defined as such in a risk assessment



Safety Gear Suits Everyone!









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- There is limited access into / out of area
- Any of the following applies:
 - Hazardous atmosphere, air may contain gases and / or explosion hazard
 - unsafe oxygen levels, for example due to nitrogen purification cleansing
 - Can cause confinement and suffocation

Confined spaces commonly include the following:

Storage inventory areas, production tanks, pressure tanks, cabin areas with only one entrance (manhole), spaces that can only be entered from above such as pits, oil pits and ditches deeper than 1.5 meters. Pipelines, pumps, culverts, ditches, tunnels, cellars, abandoned work and study area.

Never enter a confined space without a work permit. There are no second chances when you walk into an oxygen deprived room, seconds can kill!

Most deaths associated with confined spaces come in pairs: A person loses consciousness and a colleague rushes to the rescue and suffers the same fate.

Employees must have a work partner when working in an enclosed space. The work partner must always maintain eye sight and be within earshot of the employee entering the confined space.

Before entering enclosed areas where there is a risk of hypoxia (low levels of oxygen) you must make sure a ventilation system is in place.

Com	pany: Workspace:
Befo to w	re anyone enters an enclosed space, the employer (company's rep.) and the employee (the person who is going ork in the space) must make sure that all appropriate safety measures listed here below have been followed.
PAR	T 1 – Checked by company representative
1.1 1.2 1.3	The enclosed space has been ventilated and Oxygen levels have been tested showing sufficient ventilation
1.4 1.5 1.6	A watchman has been assigned at the entrance and will be present at all time while work is being carried out Communication rules between the watchman and those working in the closed space have been determined Access is unhindered and light condition is sufficient
1.7	Flashlights and portable work lights are of an approved type
PAR	T 2 – Checked by the employee who will be working in the enclosed space
2.1 2.2 2.3	Your supervisor (company's rep.) has instructed or given you authorisation to enter the enclosed space
2.4 PAR	Communication rules are clear between you and the entrance-watchman
3.1 3.2	Employ has had training and knows how to use the oxygen mask The following items have been checked and are in order: (i) Air pressure and estimated usages time
3.3	 (ii) Alarm sound for drop of air pressure. (iii) Facial mask works correctly. Communication form has been established and everyone knows the emergency signal.
It is beei	the watchman's responsibility (person guarding the entrance area of the enclosed space) to check if this form has I filled out and signed before anyone enters.
	It is forbidden to enter an enclosed space unless this form has been checked and signed
. .	· Company's rep. signature: employee signature:

7.10 Welding and weld-cutting

Employees must confirm with their supervisor if they need a work permit. This applies when working close to oil pipes, tanks or material that is flammable.

Before work begins you must remove all flammable material or cover them with fireproof cloths.

Make sure that there is no fire hazard when you finish welding, remember that gas and oxygen tanks are extremely fire hazardous.



7.11 Dehydration and heat stress



Recognising heat stress

What can cause heat stress	symptoms	
Heat Humidity Slow circulation of air	Rash convulsions Fainting	
High activity – hard labour work Too much clothing Too little fluids	Exhaustion Heat stroke	
Poor physical shape Poor nutrition Hangover		



Dehydration

Symptoms of dehydration	Preventive actions
Rarely need to urinate	Drink fluids! Have water / Gatorade and drink 250 ml
Seizures	every 20 minutes when working in a hot environment.
Absent minded	Avoid caffeine drinks
Dark urine	Drink one glass of water for every cup of coffee
Fatigue	(caffeine is also in soft drinks and tea
Excessive sweating, fluid loss can be up to 2	Avoid alcohol – it can take the body up to 10 hours to
litres per hour.	get rid of 4 small beers! Having a hangover increases the
	risk of dehydration

Heat exhaustion – physical reaction

Symptoms for severe lack of fluids and minerals	Responding to symptomatic individuals
Nausea, vomiting, increased sweating Headache Weakness, fatigue or muscle fatigue Rapid and short breathing Cool, moist and reddish skin Rapid weak pulse	Move the person to a cool place Give the person a drink (water or a energy drink) Get medical help

Heat stroke

Preventive measure	Responding to an individual with a heat stroke			
Adaptation to environment	Get medical help			
Drink lots of water	Move the individual to a cool place			
Monitor co-workers for signs of heat stress	Cool down the body - By wetting the clothes with water and			
Medical monitoring	using a fan to enhance cooling			

8 MACHINES AND HANDTOOLS

Protective and safety gear must be in place and in order at all times. Never remove or tamper with the protective gear.

8.1 Hand tools



Always check if your hand tools are in good condition before work begins. If your hand tools are damaged or faulty hand them to your foreman.

Always keep your tools in order and keep them in a secure location. When you work in heights make sure that there is no risk of your tools falling on someone working below. Never leave your tools in stairways, walk paths or where there is a risk of someone tripping over them.

8.2 Guards on machinery

Guards (and other safety devices) may never compromise employee safety. When you need to remove protective gear, for example during repair and maintenance work, always follow the manufacturer's instruction. Make sure that protective gear is securely placed back before the machine is put back into use.

8.3 Grinder

Removing the cover of a grinder is forbidden.

Always check your grinder before and after each use, make sure that it works properly. If a grinder is damaged or not working as it should it should immediately be taken out of commission. Inform your supervisor of the faulty grinder.

8.4 Machines

All major machinery and equipment have been risk assessed and employees shall familiarize themselves with the risks and appropriate preventive measures before work begins. Always get guidance from your supervisor if you haven't familiarized yourself with the proper job safety procedures or if you are unfamiliar with the work environment.

If you notice a mechanical failure or a device does not work properly, immediately notify the foreman.

9 HAZARDOUS MATERIAL

9.1 Safety instructions for material

Site Supervisors keep Material Safety Data sheets (MSD-sheets) and updated them as needed. MSD-sheets are accessible to all: if you are working with hazardous materials make sure you read the MSD-sheet before your work begins. Often, a summary of safety instructions is labelled on containers – **Read the label, while you're able!**

Always use PPE consistent with information in the instructions on labels and or in the MSD-sheet.

Site supervisors must make sure that their employees are informed of the potential risks and correct work procedures when handling hazardous materials.

Ensure that the storage and handling of Hazardous Materials does not constitute an increased risk in the workplace.

Flammable materials should never be stored near exits, stairs or emergency exits. Flammable material that is susceptible to gases and can self-ignite must be stored separately. Leakage or spills must be cleaned up without further delay and disposed in the proper containers. Waste Container for hazardous waste must be available on site.

Utmost care should be taken when working with acid based material for example when cleaning stainless steel, always wear the appropriate PPE. Supervisors should always make the effort to use less harmful chemicals if it is possible.

9.2 Emergency shower and eye wash

Emergency showers and eye wash stations must be accessible and clearly visible. Site supervisors must ensure that eye wash products are regularly renewed.



10 VEHICLES, HEAVY MACHINERY AND LIFTING EQUIPMENT

You must have a valid driver's licence to operate vehicles and a valid machinery licence to operate machinery.

10.1 Vehicles and heavy machinery

It is preferable that drivers have a watchman to guide when large vehicles are driven backwards. This applies specially when working in high noise levels where people cannot hear the reverse-horn and when areas are cramped.

It is the responsibility of the vehicle / machine operator to check load limits and make sure that all equipment is securely fastened before transportation.

When you leave a vehicle, turn off the lights, take out the keys and make sure that it is locked. Always make sure that forks are in the lowest position when you finished working with a forklift.

It is forbidden to use vehicles or machines for passenger transportation unless it has a passenger seat. It is strictly forbidden to use machinery to lift up people unless it has been designed to do so.

10.2 Cranes and lifting equipment

Crane operators must have a valid Crane operator's licence.

Absolutely no circumstances allow you to hoist a load that is heavier than load limit given for any specific lifting equipment. Always consider that any given load might have a multiplying factor. Please see Load bearing table on next page.

When hoisting avoid any sudden movements and make sure that lifting eyes are secured with safety valves. If there is a risk that the load might turn or otherwise move use navigation lines.

Blind lifts must be controlled by an appointed employee who has a good overview of the lifting site.

The crane operator must rely on the visual signal system provided by the appointed employee, use the approved signal system, see page 20.

Note that there can only be one person controlling the hoist.

If a man basket is being hoisted, you must make sure that the crane operator and those in the man basket have telecommunication at all times.





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10.3 Lifting equipment – preventive measures

Sharp edges

If you are hauling cargo with sharp edges, use protectors on the edges

Storage

Proper storage of the chain increases their lifespan, good access and labelling saves us time and reduces the risk of mistakes.

High temperature

Avoid use slings at high temperatures. Polyester slings are made of synthetic fibre and may not be used on the farm that is hotter than 100 ° C. Use chains cargo temperature of> 100 ° C.

Caution!

Improper installation of locks causes too much strain when lifting or towing.

Beware of overheating!

Recipe for destruction

Never hoist with a chain that is tangled/ bundled / rotated

Regular inspections

Check the condition of slings and chains and look for possible tension areas. Torn or damaged slings must immediately be taken out of commission. Seek the opinion of a specialist if questionable issues rise during inspection.

Chemicals destroy slings

Do not use slings near alkaline agents such as caustic soda or ammonia.

Steering lines increase safety

Always use steering lines when hauling large cargo and when there is a risk of the cargo turning/ shifting.

When welding or cutting metal, make sure that chains and its accessories don't get heat exposed. The heat could damage the chain tension strength. Temperature of chains must never exceed 200 ° C.

10.4 Load factor



Remember to check the maximum load given for slings / chains and to consider the load factor.

It is crucial to understand how the impact of different load angles has on load bearing equipment. **The load angle must never be below 30°.**

Load imposed on lifting equipment = Weight of load x Load factor

			2 slings		
Load	Load	Load imposed at	Load on each	3 slings	4 slings
Angle	factor	top	sling	Load on each sling	Load on each sling
90°	1.000	10,0	5,0	3,3	2,5
80°	1.015	10,2	5,1	3,4	2,5
70°	1.064	10,6	5,3	3,5	2,7
60°	1.154	11,5	5,8	3,8	2,9
50°	1.305	13,1	6,5	4,4	3,3
45°	1.414	14,1	7,1	4,7	3,5
40°	1.555	15,6	7,8	5,2	3,9
30°	2.000	20,0	10,0	6,7	5,0

This table shows the load factors for given load angles

10.5 Approved handsignal



11 SAFETY TRAINING AND

11.1 Introduction to safety

All newly recruited employees as well as subcontractors should read Hamar's safety manual at www.hamar.is. Before starting work, they must take and pass HD safety tests.

Each employee receives training in proper work-methods for all machinery and equipment relevant to their job.

The company's safety director is responsible informing all department managers of any and all changes to safety procedures and training. Department managers i.e. Site Managers, are responsible for informing their subordinates and sub-contractors. This safety handbook is accessible to all on the company's website both in Icelandic and in English.

11.2 Risk assessment

Regulation No.46/1980 states that the employer is responsible for making a written program for safety and health in the workplace. This handbook covers all general work and working conditions however there will always be work that is not covered, our projects and site locations can vary greatly.

When working on a task where there is little work-knowledge and risk factor is unknown you must perform a risk analysis. If the initial analysis reveals a risk factor on the scale of 6-12 you need a more thorough written assessment. Forms for written assessments are on the company internal servers. Department Managers are responsible for enforcing end ensuring that subordinates have conducted and reviewed the new written risk assessment. If thereare no available risk assessments for your work notify your supervisor and get guidance in conducting a risk assessment.



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12 ACCIDENT - RESPONSE AND DOCUMENTATION

12.1 Response Plan

In every workplace it is important that all employees can help in emergencies and respond properly upon arrival at the scene. Important instructions can be found in the Red Cross' "First aid training "- leaflets that are in all medical cabinets at Hamar's workplaces.

We encourage everyone to go on a course, either held by Hamar, Icelandic Red Cross, or courses provided by a qualified first aid instructor.



First aid training by Hamar

HD offers first aid courses every other year, at no cost for employees. The courses are customized with a focus on environment and risks related to working conditions at Hamar. These courses are regulated by a qualified first aid instructor. For more information contact HD Quality- and Safety committee, <u>ohug@hamar.is</u> or send inquiries through the tip system on our website <u>www.hamar.is</u>

12.2 Information from the Red Cross in following chapters



- 12.3 Resuscitation
- 12.4 Arriving at an accident scene
- 12.5 Sudden Illness

please visit the Red Cross website: <u>www.raudikrossinn.is</u> for details and further information.

12.3 Resuscitation

- 1. Check responsiveness: Do this by tapping, shaking, and asking if they are okay. If an individual is unresponsive immediately call 112
- Check breathing: 10 seconds: Open the airway, push back on forehead and lift chin, look and listen for signs of normal breathing. Quickly check for sever bleeding. If breathing is abnormal you should start CPR Send someone for defibrillators if available. Send someone for an AED (Automatic External Defibrillator).

CPR – What to do

Symptoms of cardiac arrest: No responses to stimuli and breathing abnormalities. The first minutes after cardiac arrest, an individual may take single gasp, do not confuse this with normal breathing

- Place the heel of one hand on the centre of the chest. Place the heel of the other hand on top of the first hand, lacing your fingers together.
- Keep your arms straight; position your shoulders directly over your hands.
- Push hard and fast 30 times, compressing the chest at least 5 cm down at the rate of 100 times per minute.

Let the chest rise completely before pushing down again

- Give 2 breaths. Open the airway; tilt the head back lifting the chin. Pinch the nostrils closed and give 2 breaths. Each breathe should take ~ 5 seconds.
- **Repeat the cycle** of 30 compressions and 2 breaths. Continue CPR until AED arrives, or more advanced care takes over.

lf you do not trust yourself to do mouth to mouth: DO HANDS ONLY CPR



Adult conscious choking – What to do:

Symptoms: Trouble talking and cannot breathe or cough – remember every second counts.

Give 5 back blows.

Bend the person forward at the waist and give 5 blows between the shoulder blades with the heel of one hand

Give 5 abdominal thrusts.

Place a fist with the thumb side against the middle of the person's abdomen, just above the navel. Cover your fist with your other hand. Give 5 quick, upward abdominal thrusts.

- Continue care. Continue sets of 5 back blows and 5 abdominal thrusts until:
 - Object is forced out.
 - Person can cough forcefully or breathe.
 - Person becomes unconscious. CALL 112.
 - Lower the person to the ground and begin looking for an object obstructing the airway.
 - Give CPR

12.4 Arriving at an accident scene

Check the scene and person(s). Make sure that the scene is safe for you and any bystanders. ALWAYS CALL 112 IF AN ACCIDENT INVOVLES ANY OF THE FOLLOWING:

HIGH FALL · HARD COLLISION · CAR TURNOVER – regardless if any injury is visible or not



- Alert others in traffic and hinder access to the scene
- Put up a safety triangle ≈ 200 meter distance
- If the scene is unsafe stay at a safe distance,
- call 112 and follow instructions.
 - Do not move a seriously injured person unless there is an immediate danger.
- Give care. Check responsiveness, breathing and sever bleeding

Controlling external bleeding

- Cover the wound with sterile dressing, (or the cleanest cloth you can find)
- Apply pressure until bleeding stops.
- Cover dressing with bandage. Check for circulation beyond injury (check for feeling, warmth and colour)
- Do not remove large foreign body that is deep into the wound
- Apply more pressure and call 112 (If no one has called 112). If bleeding does not stop:
 - Apply more dressings and bandages and continue to apply additional pressure
 - Take steps to minimize shock

Bone fractures: Swelling, open wound, pain, deformity or impaired mobility

- Seek immediate medical attention if there is suspicion of fracture, call 112
- Help the individual to a comfortable position.
- Rest Do not move or straighten the injured area.
- Immobilize -Stabilize the injured area in the position it was found, minimizing ٠ movement can prevent further injury,
- Cold Fill a plastic bag with ice and water or wrap ice with a damp cloth and apply ice to the injured area for 20 minutes (have a barrier between the ice and bare skin).
- Elevate Elevate the injured part only if it DOES NOT cause more pain.







Traffic accident

Partial-thinkness: Involve top layer of skin. Red skin, usually painful and have blisters that may open and weep clear fluid, making skin appear wet, may appear mottled and often swells.

Superficial: Only the top layer of skin. Red and dry skin, usually painful and area may swell.

Full-thinkness burns: May destroy all layer of skin and some or all of the underlying structures-fat, muscles, bones and nerves.

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• Call 112 if burned person has:

Trouble breathing

Burns - What to Look for

- Burns cover area larger than one body part or large surface area.
- Suspected burns to airway (burns to mouth and nose)
- Burns to the head, neck, hands, feet or genitals.
- A full-thickness burn
- Burn caused by chemicals, explosions or electricity

Heat (Thermal) Burns

- Remove the person from the heat source. Check for life-threatening conditions.
- Cool the burn with large amount of cold running water, until pain is relieved.
- DO NOT apply ice / Ice water: it could further damages body tissues
- **DO NOT touch** a burn with anything except a clean covering
- DO NOT remove pieces of clothing that stick to the burn area
- DO NOT try to clean a sever burn
- DO NOT break blisters
- DO NOT use any kind of ointment on a sever burn

Chemical Burns

- Chemical will continue to burn as long as it is on the skin. Remove the chemical from the skin as quickly as possible:
- Dry chemicals- Brush off using gloved hands or towel and remove any contaminated clothing before flushing with tap water.
- Flush the burn with large amounts of cool running water. Continue flushing the burn for at least 20 minutes.
- If an eye is burned by chemical, flush the affected eye with water until EMS personnel take over.

Electrical Burns

- Never go near the person until you are sure he or she is not still in contact with the power source.
- Turn off the power at its source and care for any life-threatening conditions.
- Call 211. Any person who has suffered an electrical shock needs to be evaluated by a medical professional.
- Be prepared to perform CPR or AED equipment. Electrocution can cause cardiac and respiratory emergencies.
- Care for shock and thermal burns.
- Look for entry and exit wounds
- Remember that anyone suffering from electric shock requires advanced medical care.

Severe head trauma – What to look for: Blacks out, drowsiness, memory loss, nausea and vomiting, headache, seizures, speech problems, blurred vision or light sensitivity: CALL 112

- While you wait for EMS personnel, minimize movement of the person's head, neck and spine.
- As long as the person is breathing normally support the head and neck in the position found.
- DO NOT remove headgear, unless you are specifically trained to do so, AND it is necessary to assess the person's airway.
- DO NOT apply pressure if there are any signs of obvious skull fracture.
- Try to calm and reassure the person. Encourage the person to talk with you; it may prevent loss of consciousness.

12.5 Sudden Illness







What to look for

- Changes in level of consciousness, such as feeling lightheaded, dizzy, drowsy or confused, or becoming unconscious.
- Breathing problems (i.e., trouble breathing or no breathing).
- Signals of a possible heart attack, including persistent chest pain, discomfort or pressure lasting more than
- a few minutes that goes away and comes back or
- that spreads to the shoulder, arm, neck, jaw, stomach or back.
- Signals of a stroke, including sudden weakness on one side of the face (facial droop); sudden

CALL 112 for any of the following conditions:

- Unconsciousness or altered level of consciousness
- Breathing problems / No breathing
- Chest pain, discomfort or pressure lasting more than 3 to 5 minutes that goes away and comes back or that radiates to the shoulder, arm, jaw, neck, stomach or back
- Persistent abdominal pain or pressure
- Severe external bleeding (bleeding that spurts or gushes steadily from a wound)

- weakness, often on one side of the body; sudden slurred speech or trouble forming words; or a sudden, severe headache.
- Loss of vision or blurred vision.
- Signals of shock, including rapid breathing, changes in skin appearance and cool, pale or ashen
- (Greyish) skin.
- Sweating.
- Persistent abdominal pain or pressure.
- Nausea or vomiting.
- Diarrhea.
- Seizures.
- Vomiting blood or passing blood
- Severe (critical) burns
- Suspected poisoning
- Seizures
- Stroke
- Suspected or obvious injuries to the head, neck or spine
- Painful, swollen, deformed areas (indicates possible broken bone) or an open fractur

Chest Pain: Sudden chest pain in an individual over 35 years may indicate a stroke. Symptoms are: Chest pain on the left side, often leading out the arm and neck, sweating and nausea. **CALL 112**

- Try to calm and reassure the person, help the individual to a comfortable position
- Assist the person with 300 mg of Magnyl (aspirin) (If he / she is NOT allergic to Magnyl)
- If the person stops breathing start performing CPR

Allergic Reactions symptoms: Difficulty breathing, swelling of the lips, tongue or throat, rash, rapid heartbeat or decreased consciousness. CALL 112

- Help the person to a comfortable position
- Assist with epinephrine pen if the person has such a pen and cannot inject themselves.

Seizures symptoms: A blank stare, a period of distorted sensation during which the person is unable to respond, uncontrolled muscular contractions, called convulsions, which last several minutes.

- DO NOT try to stop the seizure.
- Prevent injury, protect the person's airway and make sure that airway is open after the seizure has ended.
- DO NOT hold or restrain the person. DO NOT put anything in the person's mouth.
- Make sure that the environment is as safe as possible; remove any near by furniture or other objects that may injure the person.
- When the seizure is over roll him or her on one side so that fluid drains from the mouth. (Saliva, blood or vomit).
- Be comforting and reassuring, stay on the scene with the person until he or she is fully conscious and aware of the surroundings.
- CALL 112 if this is the first time that he or she has a seizure, the seizure lasts longer than 2 minutes or the person does not regain full consciousness within 10 minutes after the seizure has stopped.

Diabetes, symptoms: Changes in the level of consciousness, mood changes, rapid breathing and pulse, feeling and looking ill, dizziness and headache and confusion.

• If he or she can swallow give the person sugar (juice, soda, sugar cubes). Call 112 if the situation does not resolve, the person cannot swallow or the person loses consciousness.





12.6 Electrical accidents

The extent of injury, caused by contact with electric current, depends on whether it is of direct current or alternating current, what the voltage is and the extent and duration.

Electrical shocks can cause serious internal injuries. High voltage current (1000 voltage) is lethal. Even 220 volts as is common in homes can be fatal.

Heat burns: Electric currency burns clothing or objects that are in direct skin-contact. The flame from the electricity current causes the burn, not the current or the arc itself.

Electric Arc burns: Electric current runs between places, the current dos not go through the body. An arc burn can cause serious external injury even if it only lasts for a very short time.

Actual Electric burn: happens when electrical current passes through the body. Symptoms include lesions on the entry and exit points. Visible injury may appear small, but a high voltage current passing through the body can interfere with heart rate (even cause cardiac arrest), cause serious internal burns and other internal injury.

What do you see?

Electricity will travel through the body where there is little friction (nerves and blood vessels). Visible burns may seem trivial, but sever injuries are internal. Typically, the current will leave at the point where the body touches an object or where grounded (for example through metal objects) and sometimes there are several output points.

What do you do?

- If a person has been injured by touching a high voltage power line; you must break the current before you go near him or her. You must break off the current before you touch anything that might be in contact with the power line.
- If you feel tingling in your legs or your lower body when walking closer to the injured person you must stop. The tingling feeling is a sign that there is still current in the ground. Lift one leg, turn around and take a large jump away to a safe place.
- CALL 112
- If you cannot reach the injured person, do not try to move wires, even if you have a wooden stick / tongs. If the voltage is high enough (it is rarely known how great it is) the current can run up equipment and give you electric shock.
- Wait for professional personnel, with the right equipment to disrupt or disconnect the current.
- Prevent others from entering the area.

12.7 Eye injury

In our workshops the risk of an eye injury is very real if you do not use proper eye protection. Remember that it is mandatory to wear eye protection glasses on all Hamar's worksites and some tasks require full facial shield.

- First aid kits with eye washing equipment, must be accessible on all Hamar's work sites
- All eye-injury, no matter how small, must be treated as sever injury.
- If a particle, dirt or small chip enters the eye, rinse the eye and avoid rubbing it.
- Always seek a medical professional help for eye treatment.

12.8 Emergency exit signs

Warning signs and exit lights must be clearly visible. Site Managers are responsible for light systems and markings, making sure that the alarm system is in order.

12.9 Rescue - Confined space

Always follow the rescue plan; see details in the checklist for confined space in chapter 7.9-Confined spaces

- Follow the rescue plan. All employees who work in a confined space must have a work permit and a pre-defined rescue plan.
- An individual, <u>who is conscious</u> but cannot get out on his own, must be retrieved as quickly as possible, but make sure that the rescue is carried safely out (do not compromise the safety of those helping).
- If a person shows signs of unconsciousness (does not answer to your calling) do not risk your own life by rushing into the confined space, it takes seconds to lose consciousness in an oxygen deprived space. You must put on a facial mask before entering the confined space.

12.10 Harness rescue

If you are working in heights and need to wear a harness go over the following checkpoints before work begins:

- 1. Never work alone where there is a risk of falling and you need a harness.
- 2. Harnesses should be selected for specific applications and must consider: compliance (convenience), potential arrest injury, and suspension trauma.
- 3. Always have a co-worker check to see if your harness is positioned correctly, see details in chapter 4.11-Fall protection systems
- 4. Go over steps to do if you might fall: Getting your legs as high as possible and your head as close to horizontal as possible

Harness rescue:

- Always call 112 if self-rescue in not likely to be possible.
- Rescue must come rapidly to minimize the dangers of suspension trauma.
- A worker suspended in an upright position with the legs dangling in a harness of any type is subject to suspension trauma, time is of the essence because a worker may lose consciousness in only a few minutes.
- If a worker is suspended long enough to lose consciousness, rescue personnel must be careful in handling such a person or the rescued worker may die anyway. This post-rescue death is apparently caused by the heart's inability to tolerate the abrupt increase in blood flow to the right heart after removal from the harness.

For personnel performing harness rescue:

- 1. The victim should not be suspended in a vertical (upright) posture with the legs dangling straight. Victims should be kept as nearly horizontal as possible, or at least in a sitting position.
- 2. Rescuers should be trained that victims who are suspended vertically before rescue are in a potentially fatal situation.
- 3. Rescuers must be aware that post-rescue death may occur if victims are moved to a horizontal position too rapidly.

12.11 Scene of accident - documentation

Who fills out a notification?

Notifications must be filled out by the person(s) directly involved in an incident. Notifications are all online on Hamar's website: Follow instruction in the online form. If you are unsure how to do this get your supervisor, a safety rep. or a co-worker to help you out.

We welcome all suggestions and tips, you don't need an accident to trigger a good idea. You can use the website or direct email: <u>ohug@hamar.is</u> to send us your tips on what we can do better.

ຍ MachForm

Abending

Öll atvik sem þarfnast úrbóta eru formlega rýnd af gæða og öryggisráði Hamars.

All	reports are	e formally	reviewed	bv	Hamar's	Ouality	and	Safety	committee
	repores an	a ronnan,	10110100	~,	That that to	Quancy	0110	ourcer	commeteee

Má rekja ábendingu beint til þín? *	•	Is it ok if we trace the notification back to you?
Já (yes) Nei (No) Ábending - Notification *		
2. Hrós	•	
Hvaðan kemur þessi ábending *		

Serious accidents must be reported within 24 hours to the Occupational Safety and Health department and the Social Security department. Onsite safety rep. should help you out and or your supervisor.



Pollution must be notified to the Environmental Agency or local Health inspectorate.

It is important that you do not tamper with anything until the Administration of Occupational Health and Safety and or Police arrive to process the scene.

Employees must report all accidents and near accidents to Hamar's safety committee as soon as possible and always within 2 days from occurrence.

13 FIRE HAZARD

Employees must be alert for any visible, audible and odour signs that could give cause for evacuation. If such a situation becomes a reality, notify nearby co-workers and inform your supervisor.

Familiarize yourself with:

- The correct response to fire hazard
- Location of fire extinguishers and fire hoses
- Location of fire alarms
- The sound of the local alarm system
- Exit routes and evacuation plan
- A detailed evacuation plan can be found on page.30

13.1 Fire classification

Class A, B or C is the type of fire that is most likely to occur at our workplace.



Class A: "ordinary combustibles" material such as wood, cloth, rubber or some plastic.
 Use pressurized water, foam or multi-purpose (ABC-rated) dry chemical extinguishers.
 DO NOT USE carbon dioxide or ordinary (BC-rated) dry chemical extinguishers on Class A fires.



Class B: Flammable or combustible liquid or gas, materials like, oil, gasoline, grease, varnish etc. Foam, carbon dioxide, ordinary (BC-rated) dry chemical, multi-purpose dry chemical, and halon extinguishers may be used to fight Class B fires.



Carbon dioxide, ordinary (BC-rated) dry chemical, multi-purpose dry chemical and halon fire extinguishers may be used to fight Class C fires. **DO NOT USE water** extinguishers on energized electrical equipment.

13.2 Locating and using Fire Extinguishers

Class C: Electrical fire.

Fire extinguisher:

- Must be in a suspended position, clearly visible and easily accessible.
- Must be located in fire risk areas
- Must be at hand on scaffolds and work platforms if work is fire hazardous.
- Always follow the instruction label on the fire extinguisher.
- Never apply a fire extinguisher against the wind.
- If a fire occurs in a flammable liquid DO NOT apply the extinguishing agent directly on the liquid.
- Point the extinguisher downwind at the edge of the fire
- Aim the extinguisher to the perimeter of the fire use steady movements pushing the flame back.
- Use only the amount of extinguishing agent you need, keep the rest if the fire flares up again.
- NEVER USE WATER on oil, grease or electrical based fires.
- Notify your supervisor if you use a extinguisher. It must be filled after each use.
- Extinguishers must be tested annually.



KNOW HOW TO USE A FIRE EXTINGUISHER FOLLOW THE *P*A*S*S WORD *PULL *AIM *SQUEEZE *SWEEP

13.3 Fire alarm goes off

- Let others know about the fire if you hear the alarm and others do not
- Call 112
- If you don't know the origins of fire don't **go looking for it**: Evacuate the building according to evacuation plan.
- If it's a small fire use a fire extinguisher- remember to never use water based extinguishers on fire originating from electrical equipment.
- Don't risk your safety or the safety of others trying to extinguish a fire

13.4 Fire - know your escape plan

- Choose the shortest route out of the building
- If you see smoke ahead, select a different route.
- Before opening a door, feel it for heat, if it's hot choose a different route.
- Close, but do not lock, doors.
- Never use elevators in a fire
- If you there is smoke keep as close to the floor as you can and crawl outside.
- Use a mask if it is available

If you can't get out:

- Lock yourself in a room away from the fire, preferably with a window
- Let others know where you are by:
 - Call 112.
 - Shout out the window.
 - Knock and shout, make loud noise.
 - Stay calm and wait for rescue personnel.

When you have made it outside:

- Go to the assembly point. Do not block access to exits
- Notify people of your presence and share information
- Provide information regarding where to look for people who might still be in the building
- Do not enter the building again until the fire department has given permission to do so.

13.5 Evacuation - what do I do?

Employees must be alert for any visible, audible and odour signs that could give cause for evacuation. If such a situation becomes a reality, notify nearby co-workers and inform your supervisor.

If it is necessary to evacuate the building, all employees must stop their work immediately and gather at the assembly point.

Department managers are responsible for the evacuation of their subordinates. Supervisors must make sure that their subordinates leave the department BEFORE the supervisor him/herself leaves.

At the assembly point.

Everyone shall remain at the assembly point and keep calm and follow instructions from the supervisor or the rescue team. Department managers must do a headcount of their employees to make sure that everyone has made it to the assembly point.

Do not return to the evacuated premises without permission from your supervisor or the rescue team.

Familiarize yourself with escape routes in your work area and always follow the evacuation plan. See details for evacuation plan on next page.





13.6 Evacuation Plan





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NO ENTRY TO UNAUTHORIZED PERSONNEL



USE OF MOBILE PHONE PROHIBITED



PROTECTIVE GLOVES



WEAR EYEWEAR PROTECTION



WEAR SAFETY HELMET



DANGER



HOT SURFACE



CRANE OPERATING IN AREA

Hazardous work environment!

15 PHYSICAL NAD MENTAL HEALTH

At all Hamar's workshops there are signs and signals indicating appropriate safety precautions.

Familiarize yourself of their meaning and follow them!

15.1 Health check-up

We recommend you go for regular health checks. If a risk analysis reveals health hazard, a physical examination will be recommended according to the risk assessment.

If your health is at risk due to working conditions you have the right to physical examination by professional healthcare personnel at the company's expense.

As a general rule we recommended taking regular stamina tests if your work is physically demanding.

Smoking



Smoking, direct or indirect, can cause increased risk of cancer, heart and respiratory diseases.

It is forbidden to smoke in any of Hamar's facilities. Show your co-workers consideration; they all have the right to a smokeless work environment.

If you need help to quit smoking you can call 800 6030 and get professional healthcare advice or visit the website: <u>www.lydheilsustod.is</u> for online information and help.

Alcohol and drugs

Use of alcohol and drugs increase the risk of accidents. It is strictly forbidden to consume alcohol and other drugs at work. It is strictly forbidden to be under the influence of alcohol or drugs at work. All employees can be subjected to random alcohol and drug tests. There is a zero-tolerance policy for alcohol and drugs.

Mental and social health

You will find useful information on mental health at The Public Health Institute's website: www.lydheilsa.is



- 3. Continue learning as long as you live
- 4. Learn from your mistakes
- 5. Exercise daily; it enhances your well-being
- 6. Do not complicate your life unnecessarily
- 7. Try to understand and encourage those around you
- 8. Do not give up; success in life is a marathon
- 9. Discover and nurture your talents

10. Set goals for yourself and pursue your dreams

HOW DO YOU FEEL AT WORK?

The main signs of discomfort due to pressure are:

- Tiredness.
- Disruption of attention.
- Mood changes.
- Communication difficulties.
- Sadness.
- Anxiety.
- Sleep disruptions.

Hamar's policy is that the work environment is safe and healthy, employees should feel comfortable in their work environment. If you think your workload is too much, experience bullying or harassment you should turn to a safety representative or someone you can trust. The matter will be resolved in full confidentiality and cooperation with you.

Communication is key!

LÝÐHEILSUSTÓE

- Our behaviour towards one another has great influence on our wellbeing and safety.
- Compliment your colleague when he deserves a compliment.
- Keep in mind that any kind of recklessness and pranks are completely inappropriate.
- Treat all colleagues with respect.
- Sexual harassment or bullying is not tolerated.
- Vulgar humour or conduct, which hurts or causes emotional strain, is beneath us.
- Gossip can hurt and cause insecurity.

15.2 Exercise and diet

Regular exercise and a good diet improves health and increases your endurance

You can find additional information, appropriate diets and exercises, perform online self-assessment and get guidance on: www.lydheilsustod.is

Here are some pointers we recommend:

- Choose exercises you really like
- Use the stairs instead of the elevator.
- Walk or cycle between places, park the car a little further away.
- Take a pause and stretch between tasks
- Get at least 30 60 minutes of exercise each day
- Eat vegetables and fruits daily
- Have fish on your menu at least twice a week

- Choose dairy products that have less fat and sugar
- Use salt in moderation
- Make sure you have enough D vitamin, fish oil (Lýsi)
- Keep sweets, chips, alcohol and soft drinks in moderation
- Drink lots of water, frequently and minimize caffeine drinks

15.3 Musculoskeletal system

Most common work-related strain symptoms are back, neck and shoulder pain. Your body is your personal support system – don't strain it out!

The cause of back, neck or shoulder pain can be any of the following:

- Working condition / environment.
- Unpractical work posture or movement.
- Hard physical labour.
- Monotonic, repetitious movement.
- Work methods, organising tasks.
- Lack of communication.
- Lack of information and stress.

Prevention steps:

- Adopt a good posture at your work station
- Adjust your work so that you work in a height.
- Stand up / Sit down alternately.
- Use a work stool to lighten a straining pose.
- Regularly change positions.
- Wear comfortable shoes and clothes.
- Take regular breaks and move around
- Use aiding equipment.

15.4 Manual lifting

Correct body posture is important. Get assistance from a co-worker or use aiding equipment if load is > 25 kg. If possible, use a wheel barrow or trolley. Avoid repetitious lifting. If weight rests on one arm, regularly change hands.

Manual lifts:

- 1. Do not attempt to lift anything over 25 kg.
- 2. Have adequate space between your legs, stand face forward as close to the object as possible
- 3. Bend your knees and hips, keep your back straight.
- 4. Get a good grip, use gloves if object has sharp edges. Elbows should be straight, and shoulders relaxed.
- 5. Face forward and lift by shifting bodyweight from toe to heel.
- **6.** Slowly straighten your knees and hips simultaneously.
- 7. Keep your arms as close to your body as possible.
- 8. Carry the object as close to the body as possible and keep back straight.
- 9. Always make sure that you can clearly see what is in front of you and that the path is clear.



16 THE OFFICE

16.1 General office safety

Notify your office manager if furniture is impaired and have it removed. Report property defects to the building manager.

Keep the floor area clean, if you spill it - clean it!

Never stand up on office chairs with wheels, shelves, drawers or tables – these items where NOT design for standing on. -Use a stepping stool if you need to reach something up high.

Be aware of your surroundings:

- Be alert near doors which open outwards, walking around corners, small corridors and stairways.
- Extension cords must never cross walk areas and never leave drawers or cabinets open.
- Have an electrical professional tend to all faulty electrical plugs and tools.

16.2 Office work station



Adjusting the height of your chair and desk:

Adjust the height of the chair so that the soles of your feet are flat on the floor and hip joints are slightly higher than knee joints.

Adjust the height of the desk so that elbows are in the same height or slightly higher than the keyboard.

If you can't adjust the desk:

Adjust the chair so that elbows are in the same height or slightly higher than the keyboard and use a foot stool if the sole of your feet cannot reach the floor.

Keep work height relative to being able to sit with a straight back and relaxed shoulders.

Are you working long hours at the desk?

Adjust your chair for good back support: make sure your lower back is supported and that you sit up straight.

Utilize the forward tilt of your seat to change positions and readjust.

Change it up; do not slide into a bad situation. Regularly stand up, do pause exercises, stretch out your legs look away from the screen. Reaching out for something? Need to grab the ... don't twist your back, use the wheels on your chair to push you or simply stand up!

Eye safety

If you use glasses, make sure they are suitable for computer screens. Keep the difference between light of the screen and environment at a minimum.

Don't get sucked into the screen

Regularly look away from the screen, focus on something at least 6 meters away. Have your eyesight checked regularly.

Positioning computer screens:

Make sure that direct light from windows or lamps doesn't hit your eyes and be aware that it doesn't reflect from the screen into your eyes.

The screen should be at arm's length from your body and the top rim should be at eyelevel.

Your keyboard and mouse

The keyboard should be placed straight in front of you and place the mouse at the side. Use the left and right hand alternately on the mouse if you experience physical discomfort which possible relates to the mouse.

Let the elbows lie relaxed up to the body upon typing. Keep wrists in central position and rest the forearms in the area in front of the keyboard.

Use shortcuts on keyboard rather than mouse if possible.

Exercise

Avoid static work, i.e. holding muscles tense for a long time. Static work decreases blood flow to muscles and causes tiredness and discomfort. Stand and sit alternately if your desk allows. Utilize pause exercise programs if you sit for long periods, see next page for appropriate exercises.

16.3 Pause exercise.

Take a few minutes and do some pause exercises, each one is approximately 10 to 20 seconds.



17 AFTERWORD

This handbook covers general safety steps for our workplace and aims to remind us how to recognise potential risks. Remember that manuals and other reference material do not cover all safety, health, environmental and quality matters.

Our work is diverse where new risks and safety questions regularly surface, so always be alert your health and safety is most precious to us.

At the end of the day, arrive home, safe and sound at home!