VISION ZERO

7 Golden Rules to Implement the Vision Zero Strategy
Guide for the Construction Industry

VISION ZERO
Safety.Health.Wellbeing.

issa | INTERNATIONAL SOCIAL SECURITY ASSOCIATION
Section on Prevention in the Construction Industry

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Foreword

The development of a VISION ZERO guide by the ISSA Special Commission on Prevention was a very important step forward to share a global vision of prevention and to start a global movement to manage it. Based on this guide but applied to the specificities of the construction sector, the International Section of the ISSA on Prevention in the Construction Industry developed this practical guide for all actors in the construction sector: owners/clients, designers, contractors/employers and employees.

This guide takes into account the main features of the construction industry, such as the temporary and unique nature of construction, the multiplicity and diversity of stakeholders, multicultural labour and coactivity issues, outsourcing as well as construction project management and contracting. In addition to these contextual issues, the VISION ZERO guide for the construction sector also considered the Declaration of Brussels and the Declaration of Boston: in particular, the life cycle of the building. Preventing professional accidents or diseases during the entire life cycle of a building (design, construction, use and demolition) is paramount for a guide approaching issues and solutions related to the construction sector.

A focus should be set on the role of each player, at first on the customer/buyer or developer, who must invest in prevention of occupational risks for all employees on a construction site. The architect or project manager, in charge of a project, should also include the prevention of such risks in the development/design of the product in order to reduce the future risks as part of the construction, the cleaning, the maintenance or the destruction.

Finally, the VISION ZERO guide dedicated to the construction industry must be completed by the OSH rules to be necessarily introduced by the law of a State, and by the means to comply with them.

Prof. Karl-Heinz NOETEL

President International Section of the ISSA
on Prevention in the Construction Industry

Safety, Health and Well-being

For the purpose of this guide on the 7 Golden Rules to implement the Vision Zero strategy in the construction industry, the following working definitions of Safety, Health and Well-being are used, based on the ISSA Guide on the Proactive Leading Indicators:

- **Safety** – Safety at work is characterized by the active promotion and maintenance/sustainability of safe conditions and behaviour at work to sustain injury free workplaces, and the active prevention of sudden and unexpected adverse events such as accidents, incidents and near misses, as well as unsafe working conditions.
- **Health** – Physical health at work is characterized by the active promotion and maintenance/sustainability of healthy conditions and behaviour at work to sustain employees' physical health and working capacity, and the active prevention of ill-health and poor psychosocial working conditions.
- **Well-being** – Psychological health at work is characterized by the active promotion and maintenance/sustainability of healthy psychosocial working conditions to sustain individuals' positive mental health and ability to work productively and creatively, and the active prevention of ill health and poor psychosocial working conditions.

The three aspects - Safety, Health and Well-being - are closely related and interacting. This implies opportunities for synergy, which is why each one of the 7 Golden Rules should be applied to all three aspects. It is advisable to deal with the three aspects in an integrated way, and if possible, integrate them jointly into construction processes. Many construction companies nowadays have more advanced policies and systems to ensure safety than for health and well-being.

The implication of the interactions between Safety, Health and Well-being (SHW) is that even if a stakeholder only considers committing itself to the long-term goal of promoting safety, it is also necessary to deal adequately with health and well-being.

Each one of the 7 Golden Rules is relevant for all three aspects: safety, health and well-being, and consequently the SHW abbreviation is used in this guide and the 7 checklists. It is recommended that the three aspects are integrated and are also an integrated part of the construction phases. When health and well-being management is developed to a similar degree as safety management in a company, then it is an excellent opportunity for further integration of the three aspects in construction processes.

This guide builds on principles and actions in the Declaration of Boston, adopted in 2012

Principles

- active dedication to sustainable work and development by the owner/client
- careful attention to safety, health and environment during the design, planning, procurement
- strong integration of safety and health staff in all aspects of the construction process
- recognition and accommodation of a diverse and multi-cultural workforce
- mandatory safety and health leadership training for all supervisors, and mandatory OSH training for all workers
- empowerment of all workers to enforce safety and health, including strong support for young and vulnerable workers
- involvement of the regulator in all aspects of the planning and construction phases, and the extensive use of a safety case approach to prevent risks
- continuous monitoring and recordkeeping of safety and health performance measures, including hazardous occurrences, injuries and illnesses, and taking corrective actions immediately when indicated

Essential actions

- mandatory anticipation of risk, planning for prevention and coordination between construction actors
- mandatory safety and health training for all workers and supervisors
- planning for and anticipating unexpected events

A guide for employers, employees and other stakeholders in construction

In all countries, the construction industry is one of the largest and also most hazardous industries. It does not have to be that way. Accidents at work are neither fateful nor unavoidable – they always have causes. When we work together to eliminate these causes, accidents and occupational illnesses can be prevented.

The ISSA prevention strategy – known as “VISION ZERO” – is based on the conviction that every accident is ultimately preventable if the right steps are taken in advance. It is possible to design the working environment so that nobody is killed or harmed at work.

Safety and health culture

… refers to a culture in which the right to a safe and healthy working environment is respected at all levels, where government, employers and workers actively participate in securing a safe and healthy working environment through a system of defined rights, responsibilities and duties, and where the principle of prevention is accorded the highest priority (ILO Convention No. 187, Art. 1(d)).

In a strong safety culture, everyone feels responsible for safety and pursues it on a daily basis. Further progress toward a true safety culture uses accountability systems. Ultimately, safety becomes everyone's responsibility. Safety becomes a value of the organization and is an integral part of operations. Management and employees are committed to and involved in prevention. Production does not suffer but is enhanced due to the level of excellence developed within the organization.

Safety is not hard to achieve: It takes leadership

One does not necessarily have to spend money in order to start improving safety and health in the operation. Acting with awareness and leading consistently are often all that is required.

Safety pays

Good prevention is not only a legal and social obligation – it also pays off economically. Successful prevention not only avoids human suffering and protects our most valuable asset – our health and physical integrity. Prevention also has a positive impact on the motivation of employees, the quality of work and products, the company image and the satisfaction of employees, managers and customers.

Scientific studies of the “Return on Prevention” (ROP)[1] prove that every Dollar invested in safety and health generates a benefit of more than two Dollars in positive effects.

[1] ISSA/ DGUV/ BGETEM (2011). *The return on prevention: Calculating the costs and benefits of investments in Occupational Safety and Health in companies*. https://ww1.issa.int/sites/default/files/documents/publications/2-Return-on-prevention_en-29437.pdf.

Other studies show that “companies’ mental health expenses have risen more than 10% annually compared with increases of 5% for other medical costs”[2] and that “for every $1 spent on mental health care, a company will receive a $4”[3] return on investment. Consequently, this guide not only focuses on safety but also on health and well-being, because safety, health and well-being go hand-in-hand when it comes to prevention.

How this guide was developed

For the general guide directed at all industries, ISSA talked to 700 executives, managers and operations experts, asking them what works best. ISSA also asked labor inspectors and prevention experts about essential requirements for safe and healthy operations and above all, about what is practical.

ISSA’s Section on Prevention in the Construction Industry then applied the general guide to the requirements of our industry, based on the experience of our members. We tried hard to keep it simple, practical and effective.

Useful documents

Our approach to safety and health in the construction industry are grounded in three fundamental ISSA statements:

- The Declaration of Seoul (2008)
- The Declaration of Brussels (2009)
- The Declaration of Boston (2012)

Why we need a guide for the construction industry

The construction industry, by its inherent nature, is susceptible to potentially dangerous conditions that affect the safety, health and well-being of all personnel working on construction projects. As a result, it is imperative in all planning, design, bidding, and implementation that safety, health and well-being are essential components.

The construction projects are complex and unique, and they have many stakeholders and many phases. We must prevent risks during all the phases of a project’s life cycle. Different stakeholders have to be involved in each of the phases.

[2] La Vito, Angelica (2018). *Anxiety is expensive: Employee mental health costs rice twice as fast as all other medical expenses.* www.cnbc.com/2018/09/26/employers-are-starting-to-think-about-healthy-differently.html
[3] Mental Health America (n.d.). *Workplace mental health: Employee support guide.* mhanational.org/sites/default/files/Employee Support Guide_FINAL.pdf

Stakeholder commitment in the phases of construction					
Phases / Stakeholders	Design	Preparation	Construction	Use/Maintenance/ Renovation	Demolition
Owner/Client	■	■	■	■	■
Designer	■	■	■	▪	▪
Main contractors		■	■	▪	▪
Sub-contractors			■	▪	▪
Employees			■	■	■

Legend:

■ stakeholder is involved

▪ another person of this stakeholder group is involved

How to use this guide

VISION ZERO is based on leaders implementing the 7 Golden Rules. Each of the 7 Golden Rules is explained with simple action items and tools for implementing them. Each action item has a traffic light indicator, so you can easily determine whether an area of responsibility is already good, whether there is room for improvements here or there, or whether you should introduce new measures that have not been used so far. It is all up to you.

7 Golden Rules of VISION ZERO for enterprises and worksites

1. Take Leadership – Demonstrate Commitment
2. Identify Hazards – Control Risks
3. Define Targets – Develop Programs
4. Ensure a Safe and Healthy System – Be Well-Organized!
5. Ensure Safety and Health in Machines, Equipment and Workplaces
6. Improve Qualifications – Develop Competence
7. Invest in People – Motivate by Participation

How the stop lights work

Rate your company or worksite using the elements below.
Just check the stop light for each action item:

- **No action is required at the present time**
- **Action required**
- **Urgent action required**
- **Not applicable**

1 Take leadership – demonstrate commitment

One for all and all for one: In safety, health and well-being, everyone is a leader!

Every stakeholder is responsible for safety, health and well-being on construction sites. The quality of leadership not only determines how safety, health and well-being are practiced in the operation, but also how attractive, successful and fit for the future an operation will be. Modern leadership demands open communication and a clear management culture. Good leadership is exhibited by predictability, consistency, attentiveness, and open communication. What managers do, tolerate and demand sets the standard for employees. The legal responsibility remains in the company's top management, but it is what everybody on the job site does that produces results! There may be only one leader, but leadership in safety, health and well-being rests with everyone!

How do things look in my operation/on my jobsite?

1. Property owners/clients take responsibility

Construction begins and ends with the property owner. The owner has responsibilities for safety, health and well-being: to produce a design that can be built safely; to employ a qualified contractor and make sure the contractor develops a detailed safety, health and well-being plan; and to make sure that all sub-contractors and employees follow the plan.

In my construction project, the owner/client …	Rating			
… is ultimately responsible for safety, health and well-being.	○	○	○	○
… makes sure prevention is built into the design from project start to end. Designers are required by the client/owner to identify hazards which may create significant risks for contractors, users and maintenance personnel and seek to reduce them.	○	○	○	○
… selects general and sub-contractors based on the SHW program, the practices and the climate rather than low bid.	○	○	○	○
… connects with and learns from employees (e.g., participates in the employee orientation, attends daily planning meetings).	○	○	○	○
… monitors and assists with safety, health and well-being program implementation. Provides site-specific safety, health and well-being templates for each job that all general and sub-contractors are required to follow.	○	○	○	○

2. Managers are leaders and show it!

Construction sites are different from other workplaces. They are temporary with many different employers and many different trades working on them and they change every day. Working together, mutual support, good communication, being vigilant every day, anticipating and preventing risks of work to be done—those are the keys to safety, health and well-being! Managers make that happen!

In my construction project, managers …				
1. … demonstrate safety, health and well-being, set the standards and serve as a role model because occupational safety, health and well-being (SHW) are values declared by managers and leaders.	**Rating**			
… take responsibility for the safety, health and well-being of all employees.	○	○	○	○
… establish and communicate SHW objectives.	○	○	○	○
… make sure safety, health and well-being are always the first items on the agenda in all meetings.	○	○	○	○
… follow the rules.	○	○	○	○
… stop all unsafe actions.	○	○	○	○
… stay up-to-date on all the latest advances in SHW.	○	○	○	○
… solicit feedback from all employees to determine whether they live up to their function as a role model.	○	○	○	○
… consider the recommendations of their employees and put them into practice.	○	○	○	○

2. … make sure the importance of safety, health and well-being is known to everyone.	**Rating**			
… make sure you have clear rules for working safely.	○	○	○	○
… make sure every employee knows the rules.	○	○	○	○
… institute a collective mindset for well-being as a part of a respectful workplace.	○	○	○	○
… discuss safety, health and well-being matters with all employees.	○	○	○	○
… discuss the importance of mental health with all employees.	○	○	○	○
… give scripts to supervisors to help them talk to someone they believe might need psychosocial support.	○	○	○	○
… make sure all employees always know who is responsible and in charge.	○	○	○	○

3. … consistently demonstrate the importance of safety, health and well-being at work.	**Rating**			
… require that before anyone assumes management responsibilities, he or she attends a SHW leadership seminar.	○	○	○	○
… assure that employees have sufficient time to do their work carefully and safely.	○	○	○	○
… know how important SHW is to me. Rules are followed equally by all employees and managers.	○	○	○	○
… recognize correct action and consistently address misconduct.	○	○	○	○
… emphasize the importance of SHW in my operation to contractors, companies I work with, suppliers and customers.	○	○	○	○

4. … invest in safety, health and well-being in the operation.	**Rating**			
… make sure employees know their right and duty to stop work if it cannot be done safely.	○	○	○	○
… regularly verify that safe work practices are followed, for example safety walkabouts, inspections, safety audits, cross-audits according to the principle of dual control.	○	○	○	○
… make sure that adequate means and a financial budget are provided for safety, health and well-being.	○	○	○	○

5. … take care of injured and ill employees.	**Rating**			
… provide support to injured and ill employees and their families.	○	○	○	○
… actively facilitate return to work as soon as possible by adjusting workloads to the functional capacity.	○	○	○	○
… help employees detect mental health problems early and support employee's efforts to get help.	○	○	○	○
… seek to learn from employee's injuries, illnesses and near misses.	○	○	○	○

3. Employees are involved

A construction site is a safety conscious workplace where employees must understand their rights and responsibilities and stand up for safety, health and well-being!

In my construction project, employees …	Rating			
… always feel responsible for their own and their co-employees' safety, health and well-being.	○	○	○	○
… are empowered and rewarded for going above and beyond to ensure a safe and healthy jobsite.	○	○	○	○
… stop all unsafe actions.	○	○	○	○
… insist on having clear rules for working safely.	○	○	○	○
… participate in safety and even non-safety meetings and walkabouts that focus on solving specific problems identified.	○	○	○	○
… see that their recommendations are acted on at all levels.	○	○	○	○

2 Identify hazards – control risks

Anticipating the unexpected is the key to safety, health and well-being. Risk assessment serves as the essential tool for the timely, systematic identification of hazards and risks and to implement preventive actions. Accidents, injuries and near misses should be evaluated as well.

Risk assessment helps to identify hazards and risks before accidents and production downtimes occur, and it assists you with evaluating the risk potential as well as establishing and documenting the required protective measures. That is why this tool is used around the world today. Properly done, a systematic risk assessment is ideal for practical instruction of employees of your operation.

At construction sites, evaluating occupational accidents, injuries and near misses, including if relevant peak exposures and cases of work-related ill health, is important to identify focus points or potential improvements.

How do things look in my operation/on my jobsite?

In my construction project, ...				
1. … we have a strong safety, health and well-being structure.	**Rating**			
… a dedicated Safety and Health Coordinator or competent person* oversees the risk assessment and reports it directly to the top management.	○	○	○	○
… the owner/client, employees, sub-contractors and SHW personnel are all involved in the process through competent persons* that they assign to it.	○	○	○	○

2. … we make sure that a risk assessment is prepared, documented and updated at regular intervals.	**Rating**			
… managers know they are responsible for planning for each work task that is to be performed.	○	○	○	○
… we have an established approach for preparing a risk assessment that includes: 1. recording the organizational structure of the activity; 2. specifying and defining responsibilities; 3. determining activity-related hazards and risks; 4. evaluating hazards and risks; 5. establishing preventive measures; 6. implementing preventive measures; 7. verifying effectiveness of preventive measures.	○	○	○	○

… risk assessment encompasses all safety, health and well-being aspects, including: 1. traumatic injury 2. ergonomic risks causing musculoskeletal disorders; 3. physical, chemical, biological, ergonomic, musculoskeletal and psychosocial risks; 4. noise, vibration, heat, cold and other weather and forces of nature; 5. health risks such as toxic materials; 6. mental health risks, such as stress, depression, anxiety, substance use, addiction and suicide.	○	○	○	○
… the risk assessment is updated continuously.	○	○	○	○

3. … occupational accidents, near misses and critical incidents are reported, recorded statistically and evaluated to determine the potential for improvements.	**Rating**			
… managers are informed immediately of all occupational accidents, near misses and critical incidents, including if relevant peak exposures and cases of work-related ill health, in the operation, and of the impairment of health of any employees.	○	○	○	○
… occupational accidents, entries in the first aid log, near misses and critical incidents, including if relevant peak exposures and cases of work-related ill health, are carefully investigated to determine the root causes and implement preventive measures.	○	○	○	○
… we maintain statistics in order to identify trends and focal points.	○	○	○	○
… the 3 most common causes of accidents and health problems in my operation and the resulting costs are known to me.	○	○	○	○
… the results of these analyses are incorporated in the risk assessment and prevention programs.	○	○	○	○
… knowing about the number of near misses and critical incidents, including if relevant peak exposures and cases of word-related ill health, that are reported demonstrate the culture of trust in the operation.	○	○	○	○

4. … we utilize the insights gained from the risk assessment and from accident analysis to make improvements.	**Rating**			
… the top management certifies on a sampling basis whether the established protective measures are effective. The results of the risk assessment are used to make improvements in the operation.	○	○	○	○
… training and work instructions incorporate the findings of the risk assessment.	○	○	○	○

*__Competent Person__ is a technical term in the construction industry and means one who is capable of identifying workplace hazards and who has authorization to take prompt corrective measures to eliminate them

3 Define targets – develop programs

Success in occupational safety, health and well-being requires clear goals and concrete steps for implementation, which should be established in a program.

Occupational safety, health and well-being have many facets. Prioritize: Establishing clear goals for SHW in your operation, striving to implement them over the short and medium term. There are several options for a goal-oriented, program-based approach: Either you set the goal to continuously reduce the number of accidents and sick leaves, or you establish themes to focus on.

In the construction industry, these themes could be based on the main safety and health risks at construction sites, such as slips and trips, falling from heights, electrical risks or hazardous substances. . If employees recognize that their safety, health and well-being is important to the company and that something is being done in the operation, success will not be long in coming. Good managers communicate regularly about the achievement of goals and take accountability when goals are not met.

How do things look in my operation/on my jobsite?

1. Owner/client responsibilities				
In my construction project, …	**Rating**			
1. … there is a clear vision of a goal-oriented, program-based approach during all stages of the construction project in order to come to a constant improvement of safety, health and well-being and a reduction of accidents, occupational diseases and mental health problems.	○	○	○	○

2. … this goal-oriented, program-based approach has the aim of continuous improvement on safety, health and well-being through:	**Rating**			
• the setting of targets considering SMART principles: specific, measurable, achievable, results-focused, time-bound;	○	○	○	○
• the development of an action plan that includes preventive and corrective measures, responsibilities and deadlines;	○	○	○	○
• the announcement of this program to all employees;	○	○	○	○
• a periodical review and update of the program;	○	○	○	○
• the evaluation of safety, health and well-being performance by the top management of all parties involved. This includes audit, assessment and reporting.	○	○	○	○

3. … the owner makes sure that this goal-oriented, program-based approach is implemented by:	**Rating**			
• communicating it to all parties involved;	○	○	○	○
• establishing a good communication between those who manage safety, health and well-being;	○	○	○	○

• integrating it in the specifications of the construction project;	○	○	○	○
• rejecting offers that do not comply with the specifications regarding the pursuit of a goal-oriented, program-based approach;	○	○	○	○
• taking corrective measures if needed;	○	○	○	○
• appointing an SHW-expert.	○	○	○	○

4. … this goal-oriented, program-based approach does not substitute any legal requirement for the parties involved in the construction project.	○	○	○	○

2. Designer responsibilities

In my construction project, the designer …

1. … makes sure the vision of the owner/client is expressed in the specifications, including:	**Rating**			
• references to all applicable laws and specific regulations, especially those related to SHW;	○	○	○	○
• the aim of continuous improvement in safety, health and well-being and the reduction of accidents, occupational diseases and mental health problems;	○	○	○	○
• the need for the setting of measurable corporate targets;	○	○	○	○
• the need for the development of an action plan that includes preventive and corrective measures, responsibilities and deadlines;	○	○	○	○
• the need to inform all employees about this goal-oriented, program-based approach;	○	○	○	○
• the need for a systematic review of the goal-oriented, program-based approach;	○	○	○	○
• the need for adoption and implementation of the goal-oriented, program-based approach of all parties involved;	○	○	○	○
• the need for an evaluation of safety, health and well-being performance by the top management of all parties involved. This includes audit, assessment and reporting.	○	○	○	○

2. … consults with the client/owner and points out non-conformity between practices and specifications during the execution stage.	○	○	○	○

3. Main contractor responsibilities

In my construction project, the main contractor...	Rating			
1. …makes sure that the offers from sub-contractors are in compliance with the specifications of the designer and the client/owner and with the legal requirements, especially those related to OSH.	○	○	○	○

2. …implements the legal requirements and the specifications of the designer and the client/owner regarding the pursuit of a goal-oriented, program-based approach by:	Rating			
• establishing clear goals and milestones for safety and health;	○	○	○	○
• planning concrete activities to reach the goals;	○	○	○	○
• communicating the plans throughout my project;	○	○	○	○
• assigning specific responsibilities to managers and holding them accountable;	○	○	○	○
• making sure employees understand their rights and responsibilities and are involved in the safety and health process.	○	○	○	○

3. … measures performance and makes improvements, when necessary, by:	Rating			
• comparing results to established goals and milestones, industry benchmarks and other operations similar in size and characteristics;	○	○	○	○
• communicating results throughout my project;	○	○	○	○
• making changes in operations if the results are not satisfactory.	○	○	○	○

4. … supervises the work of sub-contractors by:	Rating			
• informing sub-contractors about the specifications of the designer regarding the pursuit of a goal-oriented, program-based approach;	○	○	○	○
• assuring that sub-contractors follow the specifications;	○	○	○	○
• demanding corrective actions if specifications are not followed;	○	○	○	○
• verifying that the sub-contractor fulfills its duty to protect the safety, health and well-being of its employees.	○	○	○	○

4. Sub-contractor responsibilities

In my construction project, the sub-contractors ...	Rating			
1. … are informed about the legal requirements and specifications of the designer and the client/owner regarding the pursuit of a goal-oriented, program-based approach.	○	○	○	○

2. … maintain continuous communication with the main contractor:	Rating			
• when deviations from specifications are necessary because of the work task that is to be performed and when they request evaluating hazards and risks and establish new preventive measures;	○	○	○	○
• when work tasks with potential high SHW risks are to be performed;	○	○	○	○
• when work tasks may interfere with the work of other contractors on site so coordination can be implemented.	○	○	○	○

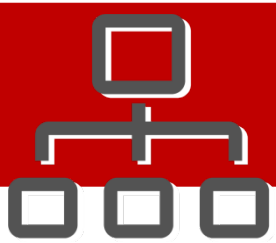
3. … have established clear goals for safety, health and well-being, including:	Rating			
• commitment to the importance of safety, health and well-being protection at work;	○	○	○	○
• short and medium-term SHW targets and milestones;	○	○	○	○
• managers and employees are in full agreement with my goals and milestones.	○	○	○	○

4. … plan concrete activities to reach the goals, including:	Rating			
• a schedule of tasks to be performed which flags high-risk tasks;	○	○	○	○
• pre-work preparation, including review of tasks to be performed;	○	○	○	○
• assignment of responsibilities to managers, SHW specialists and competent persons.	○	○	○	○
• establishment of performance measures to evaluate SHW.	○	○	○	○
• following all of these requirements when subcontracting work to other contractors.	○	○	○	○

5. Employee responsibilities

In my construction project, the employees …	Rating			
… understand the goal-oriented, program-based approach, including the specific targets for safety, health and well-being for my workplace.	○	○	○	○
… have a positive attitude towards safety, health and well-being.	○	○	○	○
… voluntarily participate in events aimed at the reduction of accidents,occupational diseases and mental health problems.	○	○	○	○
… understand that progression of safety, health and well-being is the result of a common approach, in which I have an important role to play.	○	○	○	○
… make suggestions for specific targets for the improvement of safety, health and well-being.	○	○	○	○
… stop any work which may pose a safety, health and well-being risk and communicate this situation to their supervisors so control measures would be implemented.	○	○	○	○

4 Ensure a safe and healthy system – be well-organized!



Introducing SHW management systems at the organizational level has a positive impact on the reduction of hazards and risks, which has been recognized by governments, employers and employees.

On construction sites, SHW management systems should include aspects such as ensuring walkways are always clear of obstructions, safeguarding moving machine parts and providing employees with adequate personal protective equipment.

The adoption of adequate instruments aimed at measuring the efforts made and the progress achieved by all participants in the work process at all levels should be based on proactive monitoring and not only reactive monitoring. With well-organized occupational safety, health and well-being, the operation runs more smoothly because disruptions, production downtime and quality problems are reduced. Good reasons for you to make sure your occupational safety, health and well-being organization is effective – it pays off!

How do things look in my operation/on my jobsite?

1. Owner/client responsibilities

In my construction project, the owner/client …

… has a clearly defined structured safety, health and well-being management system requirement which includes the following aspects:	**Rating**			
• the aim of promoting continuous improvement in all aspects of safety, health and well-being performance;	○	○	○	○
• clear policy statements by top management of all parties involved, that express a positive attitude, commitment and accountability;	○	○	○	○
• the policy is communicated throughout the project and everyone knows it;	○	○	○	○
• the program is reviewed and updated periodically;	○	○	○	○
• the policy is not a substitute for existing laws or regulations.	○	○	○	○

2. Designer responsibilities

In my construction project, the designer …

… makes sure that safety, health and well-being is a top priority through the project life, including:	**Rating**			
• preparing project specifications that reference all applicable regulations and requirements specified by owner and incorporating these in the offer/bid documents;	○	○	○	○
• checking each offer to make sure they have addressed these specifications;	○	○	○	○

• making sure that the project execution follows the specifications.	○	○	○	○

3. Main contractor responsibilities

In my construction project, the main contractor ...

… implements the safety, health and well-being system, including:	**Rating**			
• establishing a safety, health and well-being organization commensurate with the needs of the project;	○	○	○	○
• having described and established the tasks, responsibilities and competencies of managers – also in the areas of safety, health and well-being – and assigned them in writing;	○	○	○	○
• making sure sub-contractors are in compliance with the safety, health and well-being specifications and are integrated into the overall safety, health and well-being organization;	○	○	○	○
• executing the project according to the safety, health and well-being specifications;	○	○	○	○
• identifying potential risks in advance, preparing for them and making sure such tasks are supervised by a competent person;	○	○	○	○
• pointing out deficiencies in the safety, health and well-being specifications and making sure they are corrected before continuing work;	○	○	○	○
• maintaining an emergency response procedure;	○	○	○	○
• maintaining a reporting system for all injuries,near misses and cases of work-related ill health;	○	○	○	○
• monitoring if there is discrimination and bullying in the company;	○	○	○	○
• taking corrective actions whenever they are necessary.	○	○	○	○

4. Sub-contractor responsibilities

In my construction project, the sub-contractors ...

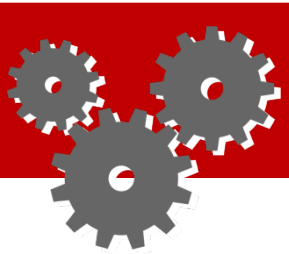
…implement a safety, health and well-being system that conforms to the one established by the main contractor.	**Rating**			
… make sure all construction activities are planned and coordinated through effective communication with the main contractor and other sub-contractors.	○	○	○	○
… don't implement work tasks that can pose risks to employees of other contractors on the site.	○	○	○	○

5. Employee responsibilities

In my construction project, the employees …

… are actively involved in the safety, health and well-being process, including:	Rating			
• exhibiting a positive attitude towards safety and health;	○	○	○	○
• participating in job-site safety, health and well-being activities;	○	○	○	○
• performing work as specified by the designer and directed by the employer/supervisors;	○	○	○	○
• reporting any potential deficiencies in the safety, health and well-being process to superiors or safety and health personnel;	○	○	○	○
• immediately stopping any work that poses an imminent hazard and reporting the condition.	○	○	○	○

5 Ensure safety and health in machines, equipment and workplaces



Safe production facilities, machines and workplace conditions (including also the use of innocuous substances at work) are essential for working without accidents. Health and well-being effects have to be considered as well.

The TOP principle applies for occupational safety, health and well-being: It means that risks have to be reduced first by applying technical measures, if these are insufficient organizational measures have to be taken and at the very last come personal safety measures.

On construction sites, for example the movement of heavy equipment, including excavators, bulldozers, etc. is one of the leading causes for accidents. At the same time, the operators of heavy construction equipment may face health hazards related to for example whole-body vibration and postural requirements.

This is where retrofitting is required. Informing the purchaser that safety and health come first and that safety equipment must be part of the scope of delivery has proven itself. Attention: Most accidents occur in improvised situations, such as unexpected troubleshooting, unplanned repairs or maintenance – also because safety devices are bypassed or fail to function. Preventing this is a management responsibility.

How do things look in my operation/on my jobsite?

1. Owner/client responsibilities

In my construction project, the owner/client …

… demands proper site conditions, including:	**Rating**			
• a well-organized operation with good housekeeping, which also prevents slips, trips and falls;	○	○	○	○
• attention to minimizing noise and air pollution;	○	○	○	○
• traffic patterns that minimize risks;	○	○	○	○
• handling of materials in such a way that no excessive force is demanded from the employees.	○	○	○	○

… demands the use of up-to-date and well-maintained equipment and tools.	**Rating**			
… makes sure that our production facilities, machines and equipment do not pose any health hazards, and that these are minimized.	○	○	○	○
… makes sure that emissions such as dust, hazardous substances, noise and vibrations are determined and/or measured, minimized as far as possible and that the effectiveness of the protective measures is reviewed at regular intervals.	○	○	○	○
… facilities for the reduction of emissions, such as dedusting systems, are maintained at regular intervals and their effectiveness is verified.	○	○	○	○

… pays attention to the ergonomic design of workplaces and work equipment, e.g. adequate lighting, ergonomic handling, a good sitting position and avoiding unfavorable constrained postures.	○	○	○	○

2. Designer responsibilities

In my construction project, the designer …

… prepares a plan based on the vision of the owner, including:	**Rating**			
• security of site;	○	○	○	○
• entrance and exit of personnel, including emergency evacuation procedures;	○	○	○	○
• requirements for good housekeeping at all times and in all places;	○	○	○	○
• handling of hazardous materials;	○	○	○	○
• regulation of the movement of vehicles and equipment;	○	○	○	○
• placement of materiel, equipment and tools on the site.	○	○	○	○

3. Main contractor responsibilities

In my construction project, the main contractor ...

… implements a site operation plan that includes:	**Rating**			
• control of all entry points to site, and restricting all unauthorized access;	○	○	○	○
• entrance and egress of personnel, materials and supplies;	○	○	○	○
• good housekeeping at all times and in all places;	○	○	○	○
• traffic control;	○	○	○	○
• optimization of safety, health and well-being through the procurement process;	○	○	○	○
• placement of material, equipment and tools on the site;	○	○	○	○
• safety of all scaffolding, rigging and hoisting operations;	○	○	○	○
• continuous inspection of all equipment and tools;	○	○	○	○
• detailed maintenance records for all machinery, equipment and tools;	○	○	○	○
• work procedures for critical tasks, such as excavations, work at height.	○	○	○	○

4. Sub-contractor responsibilities

In my construction project, sub-contractors ...

… follow the main contractor's operations plan, including:	Rating			
• refusing to carry out work tasks deemed to be potentially hazardous to safety, health and well-being until procedures for performing the work safely have been agreed to with the main contractor;	○	○	○	○
• entering the construction site only by authorized employees;	○	○	○	○
• registering all hazardous materials to be used with the main contractor;	○	○	○	○
• maintaining and documenting machinery, equipment and tools.	○	○	○	○

5. Employee responsibilities

In my construction project, the employees …

… follow the operations plan, including:	Rating			
• being competent to operate with the machinery, equipment and tools they are assigned;	○	○	○	○
• becoming trained for the use of any new machinery, equipment or tools;	○	○	○	○
• checking the integrity of machinery, equipment or tools before every use;	○	○	○	○
• using machinery, equipment or tools only within the parameters specified by the manufacturer;	○	○	○	○
• maintaining machinery, equipment or tools as required by the manufacturer;	○	○	○	○
• stopping the use of any machinery, equipment or tools if they appear to be non-conforming and reporting it to the appropriate supervisor.	○	○	○	○

6 Improve qualifications – develop competence

Invest in the training and skills of all parties involved, and make sure that the required knowledge is available at every workplace in all stages of the construction project!

Everyone involved in a construction project requires adequate SHW training (for designers, experts, managers, foremen, employees, etc.). Training helps people to gain the skills and knowledge, and ultimately the competence, to carry out their work safely and without risk to the health of the parties involved.

All parties that intervene in the construction project must be evaluated and trained to the level needed to realize the project safely and without risk to the health and well-being of the parties involved. A special meeting for new parties involved should be organized to explain the organization and rules, in a language and a way that the participants understand.

It is of utmost importance to make sure that:

1) a detailed description of the qualification requirements for every position in the construction project has been made; and
2) every party involved has received the qualifications required to perform the duties of his or her position.

In construction safety, health and well-being, many work tasks that have inherent risks require the commitment of a competent person. This is a term of our industry for someone who is knowledgeable about the task and experienced in its execution, and who is capable of identifying workplace hazards and who has authorization to take prompt corrective measures to eliminate them. It is critical to safety, health and well-being that such persons are up-to-date on their technical knowledge and experience.

The project evolves constantly, and the skills of all need to be refreshed at regular intervals. More than ever, providing training and continuing education is a must! And, by the way: Leadership and management skills need to be learned too!

How do things look in my operation/on my jobsite?

1. Owner/client responsibilities				
In my construction project, the owner/client …	**Rating**			
… has participated in a training course on SHW. He requires that all supervisors and employees who work on the project have the right skills, training and competencies related to SHW.	○	○	○	○
… requires that all supervisors and employees who work on the project have the right skills, training and competencies related to safety, health and well-being.	○	○	○	○

2. Designer responsibilities				
In my construction project, the designer …	**Rating**			
… has the necessary skills to make designs that can be built, exploited and maintained safely and without health risks.	○	○	○	○

… understands the skills requirements to perform specific work tasks safely and incudes them in the specifications.	○	○	○	○
… identifies potential high-hazard work tasks, including those that entail work with hazardous substances, and includes training requirements commensurate with the risks in the specifications.	○	○	○	○

3. Main contractor responsibilities

In my construction project, the main contractor …

… establishes and implements skills and SHW training requirements, including:	**Rating**			
• The main contractor makes sure that all persons employed on the project have the training required to perform the required work professionally and safely.	○	○	○	○
• All supervisors are required to be certified, based on professional training, in the basics of SHW management.	○	○	○	○
• The construction schedule defines tasks that need special safety, health and well-being training requirements as “critical” and the main contractor makes sure that all persons who work on such tasks have the required training.	○	○	○	○
• All employees receive pre-placement induction training, including hazard awareness, rights and responsibilities and stop work provisions.	○	○	○	○
• All job tasks start with a “toolbox” briefing on potential hazards and required SHW precautions.	○	○	○	○
• The main contractor ensures that any on-the-job training that takes place is performed by a competent person using the latest evidence-based knowledge in a language that is easily understood by employees.	○	○	○	○
• The main contractor encourages employees to upgrade their skills through continuous learning and endeavors to make such training and education available.	○	○	○	○
• The main contractor ensures all sub-contractors to meet specifications for skills and SHW training required by laws, regulations and the needs to the work to be performed.	○	○	○	○

4. Sub-contractor responsibilities

In my construction project, the sub-contractors ...

… are in compliance with the training requirements established by the main contractor, including those required by laws, regulations and the needs to the work to be performed.	**Rating**			
… ask all employees to document that they are qualified to perform the job tasks assigned to them in a safe and healthful manner.	○	○	○	○
… ensure that all job tasks start with a “toolbox” briefing on potential hazards and required SHW precautions.	○	○	○	○
… ensure that any on-the-job training that takes place is performed by a competent person using the latest evidence-based knowledge, in a language that is easily understood by employees.	○	○	○	○

5. Employee responsibilities

In my construction project, the employees …

… value continuous upgrade training, including:	**Rating**			
• using the latest skills and knowledge that they have learned;	○	○	○	○
• participating actively in all job-site training programs;	○	○	○	○
• assisting in the training of colleagues and especially of young and vulnerable people;	○	○	○	○
• consulting their supervisor and seeking instruction from a competent person in case of detecting a deficiency in their skills or knowledge regarding the prevention of risks;	○	○	○	○
• informing their supervisor in case of detecting a deficiency in the skills or knowledge regarding the prevention of risks in another employee.	○	○	○	○

7 Invest in people – motivate by participation

Employees and their representatives must be involved in decision-making at the enterprise level and should

a) **be given adequate information on safety, health and well-being matters to enable them to examine factors affecting safety, health and well-being to propose preventive measures.**
b) **be consulted when major new safety, health and well-being measures are envisaged to obtain the support of the employees for such measures.**

To achieve success in SHW management, there needs to be effective communication up, down and across the organization. The safety rules must be known. All accidents, incidents, near misses or hazards must be recorded (after a competent person takes appropriate immediate action to minimize the risk of injury or damage), and the information given. Organizations need to communicate information to their employees on the risk to their safety, health and well-being as identified in their risk assessments, and the preventive and protective measures necessary to control risks.

Establishing a good communication between the various persons or entities who manage safety, health and well-being is very important.

Furthermore, at a construction site where employees from different companies are working together, effective communication needs to be developed between them. A good exchange of information and communication between the parties involved in the different stages of a construction project is also crucial.

There needs to be confidence between all parties involved. This confidence results in an open dialogue where it is common to bring up problems and to discuss them together. Confidence in the processes of a company will contribute to a better safety, health and well-being culture.

The goal is for everyone to also look after their colleagues – according to the motto: **“One for all – all for one!”**

How do things look in my operation/on my construction site?

1. Owner/client responsibilities				
In my construction project, the owner/client …				
… has expressed a clear vision on the involvement of everyone in the management of SHW, including:	**Rating**			
• an open dialogue about hazards, risks and prevention amongst all parties involved is crucial during the design, the construction and the maintenance stage;	○	○	○	○
• the demonstration of a safety culture is promoted by all parties involved;	○	○	○	○
• the building of a company culture that embraces well-being;	○	○	○	○

• access to SHW- documentation and instructions are guaranteed for all in a language used by the staff. This includes: 1. SHW policies 2. risk evaluations 3. operating instructions 4. conduct in case of emergency 5. conduct after an accident 6. conduct in case of mental health problems (including for example substance abuse, addiction, suicide)	○	○	○	○
• meetings on SHW will be organized at all operational levels;	○	○	○	○
• SHW topics are introduced in daily routine discussions of everyone;	○	○	○	○
• SHW will be the first topic to discuss during all meetings related to the construction project.	○	○	○	○

2. Designer responsibilities

In my construction project, the designer …	**Rating**			
… makes sure information, communication and involvement of all in the management of SHW for my construction project is included in the specifications.	○	○	○	○
… conducts a dialogue about SHW with all parties throughout the construction process.	○	○	○	○
… reports concerns and safety culture to the owner.	○	○	○	○

3. Main contractor responsibilities

In my construction project, the main contractor ...				
1. … has established requirements for information, communication and involvement of everyone in the management of SHW in accordance with the owner's vision and the designer's specifications. These requirements are:	**Rating**			
• Safe behavior is a fundamental requirement on this project.	○	○	○	○
• Managers and supervisors demonstrate their personal appreciation to the employees.	○	○	○	○
• Employees are involved in decisions related to SHW in the operation. Employees are rewarded for safe behavior.	○	○	○	○
• Potentially unsafe conditions are addressed immediately.	○	○	○	○
• Managers and supervisors are approachable for my employees and take their concerns seriously.	○	○	○	○
• Employee concerns are acted on and feedback is provided in a timely manner.	○	○	○	○

2. … has established and further developed a positive company culture, including SHW.	**Rating**			
… bases the company's culture on trust, respect and cooperation.	○	○	○	○
… encourages problems to be addressed openly. Everyone has the right and duty to say STOP in case of danger and unsafe working conditions.	○	○	○	○
… motivates everyone on the project to look out for each other.	○	○	○	○

3. … has established procedures to promote participation and motivation.	**Rating**			
… uses toolbox sessions to review all work that is to be done, to identify and minimize risks.	○	○	○	○
… encourages good performance and safe work practices of employees and managers by financial or intangible incentives.	○	○	○	○
… facilitates employees to contribute their ideas about safety, health and well-being, for example via a suggestion box, bulletin board or via the Intranet.	○	○	○	○
… rewards employees who openly report near misses.	○	○	○	○
… allows employees to report cases of for example discrimination, bullying, substance use and addiction anonymously.	○	○	○	○

4. Sub-contractor reponsibilities

In my construction project, the sub-contractors ...	**Rating**			
… follow the procedures established by the main contractor with regard to information, communication and employee involvement in SHW.	○	○	○	○

5. Employee responsibilities

In my construction project, the employees …

… are strongly involved in the SHW process, including:	**Rating**			
• having a positive attitude towards SHW;	○	○	○	○
• demonstrating leadership in SHW by helping colleagues and by example;	○	○	○	○
• participating actively in toolbox sessions and awareness programs;	○	○	○	○
• reporting incidents, near misses and accidents as well as for example cases of discrimination, bullying, substance use and addiction;	○	○	○	○
• asking managers and supervisors about information regarding safety, health and well-being issues;	○	○	○	○
• informing managers, supervisors and colleagues about dangerous situations.	○	○	○	○

This guide is based on the general Vision Zero guide for employers and managers “7 Golden Rules – for zero accidents and healthy work”, which was developed by the International Social Security Association (ISSA). The general Vision Zero guide was adapted to the specific requirements of the construction sector by the International Section of the ISSA on Prevention in the Construction Industry (abbr. ISSA Construction).

International Section of the ISSA on Prevention in the Construction Industry

ISSA Construction was founded in 1968 and is one of the 14 international prevention sections of the ISSA with the aim of preventing accidents and occupational diseases in the construction industry. It identifies and disseminates information on good practice in occupational safety and health and promotes the Vision Zero approach.

The Section’s activities include the organization of technical and thematic meetings, studies, expert discussions during ISSA Congresses and international symposia on the prevention of occupational accidents and diseases like the international symposia in Brussels (2009) and Boston (2012).

Useful Links:

https://ww1.issa.int/
Official website of the International Social Security Association

https://ww1.issa.int/prevention-construction
Official website of the ISSA Construction Section

https://visionzero.global/
ISSA’s resource on VISION ZERO and the Seven Golden Rules

https://visionzero.global/guides
Digital resources on Vision Zero, including this Vision Zero guide

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