Employer’s Health and Safety Requirements

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# GENERAL PROVISIONS

## OBJECTIVE

The following health and safety requirements apply to all activities involved in the construction of PV Plants projects, including every phase of construction, installation, and commissioning, as well as all related structures and equipment necessary for the execution of the works.

The objective of these Employer’s Health and Safety Requirements is to set out the requirements for managing health and safety for the works with a view to:

1. Preventing accidents, diseases and harmful effects on the health of workers arising from employment in construction
2. Ensuring appropriate implementation of the construction works
3. Providing comprehensive means of monitoring safety, health, working environment and conditions, construction processes, activities, technologies, and operations, and subsequently taking appropriate measures for effective planning, control, and enforcement

## APPLICATION

This Health and Safety System applies to construction activities which cover the construction, installation, and commissioning of all types of works for PV Plants, and associated structures and equipment for the works.

This Health and Safety System is in accordance with Romanian and European Health & Safety Legislation and the Employer’s health and safety policies.

The Employer’s Health and Safety Management System, consists of the following 3 parts:

* + - * Health and Safety System (current document)
      * Health and Safety Procedures (Appendix A)
      * Health and Safety Forms (Appendix B)

**The Health and Safety System** outlines the minimum health and safety provisions and requirements, policies, planning, and implementation, checking, controlling, and reviewing requirements for all involved entities. It also includes health and safety requirements for the Contractor and Subcontractors.

The Contractor is required to obtain written acceptance from all Subcontractors confirming their agreement to the health and safety conditions and requirements established by Perpetuum. The Contractor must provide Perpetuum with appropriate documentation as evidence of this acceptance. Furthermore, the contractual agreement between the Contractor and each Subcontractor must incorporate the same terms and conditions as those set out in the contract between Perpetuum and the Contractor.

**Appendix A** includes the health and safety procedures as well as the minimum requirements for the health and safety procedures from the Subcontractor’s side. Subcontractors shall adopt the present Health and Safety System entirely, providing that they fully satisfy their legal and contractual obligations.

**Appendix B** includes the health and safety forms that will be used for the works as a minimum.

## DEFINITIONS

The following definitions are used throughout the Health and Safety System. If in conflict with the terms and conditions of the Contract, the latter supersedes unless otherwise agreed.

**Incident**: An unexpected event that may negatively impact the cost, schedule, or quality of a work activity.

**Audit**: A systematic and comprehensive review of all safety management systems, including detailed inspections of construction sites to verify compliance.

**Active Safety System**: Any proximity-based safety warning device designed to prevent or mitigate collisions and accidents.

**Security Contractor**: The contractor responsible for managing site security services and access control procedures.

**DPC**: Equipment designed to protect multiple individuals simultaneously from specific hazards. These devices must be used in areas that are frequently accessed and where collective protection is necessary.

**Environmental Officer:** A professionally trained individual appointed by the Contractor to ensure compliance with environmental regulations and standards.

**Health and Safety Officer:** A professionally trained individual appointed by the Contractor to oversee compliance with health and safety requirements on site.

**HSE Manager:**The individual appointed by the Contractor, with appropriate professional qualifications, responsible for managing all aspects of Health, Safety, and Environmental (HSE) compliance.

**Document of Risk Assessment:** A formal document outlining the identification, evaluation, and management of health and safety risks associated with the project.

**PPE (Personal Protective Equipment):** Equipment worn by individuals to reduce exposure to workplace hazards. Examples include gloves, safety footwear, eye protection, hearing protection (e.g., earplugs, earmuffs), helmets, respirators, masks, and protective clothing.

# HEALTH AND SAFETY POLICY

A strong commitment to health, safety, and environmental protection is a core value of Perpetuum and must guide the behaviour of all individuals operating on Perpetuum sites.

Contractors are expected to cooperate fully and to:

1. Ensuring employee and third-party occupational health and safety by reducing the risk of work accidents and work-related illnesses
2. Creating a learning culture and working out preventive measures against non-compliances and incidents for all company processes in collaboration with our employees, customers and partners
3. Compliance with all relevant national laws and international standards at the place of the works
4. Fulfilling local authorities requirements as well as taking all other interest groups into account
5. Setting goals and constantly monitoring the suitability of our systems to assure constant improvement in all company processes

This Health and Safety System and its provisions are applicable to, and mandatory for all persons working on or visiting the site, including: contractor’s employees, subcontractors and subcontractor employees, vendors and suppliers, employer’s personnel and all site visitors.

It is the responsibility of each contractor to enforce the health and safety requirements for its subcontractor’s employees, as well as for its own employees. Nothing in the Health and Safety System shall be constructed to diminish the employer/employee responsibilities, obligations and relationship.

All contractors must ensure that they, along with their employees, subcontractors, and suppliers, comply with the provisions of this program while on the jobsite and during contract activities. Failure to comply may result in removal of the contractor and/or its employees from the site.

# WORKS HEALTH AND SAFETY OBJECTIVES

The contractor shall adopt the following objectives with regard to health and safety:

* No accidents to personnel.
* No violation of the Employer’s health and safety rules and requirements.
* No exposure of personnel to hazardous materials.
* No exposure of personnel to excessive noise.

## 3.1 KEY PERFORMANCE INDICATORS (KPI)

For achieving the above objectives, and for monitoring health and safety performance at all times, a number of leading health and safety performance indicators will be developed by the Contractor with close co-operation with the Employer. The targets of these performance indicators are:

**Zero Incidents** **and more specifically**:

* No injury to people
* No damage to materials or property
* No uncontrolled emissions
* No unsafe actions and conditions

The project goal is to have zero injuries, and all project participants must do their utmost to meet this goal. The following health and safety activity performance indicators will be developed in the construction phase:

**ACCIDENT(s) – Reactive KPIs/Health and Safety Inspections/Health and Safety Training Seminars**

The Contractor will develop the following KPI’s in relation to the accident occurrence.

|  |  |  |
| --- | --- | --- |
| **Key Performance Indicator** | **Evaluation Frequency** | **Description** |
| **Number of Employer Employees** | Per Works  Per month | Number of employees present at work |
| **Number of Contractor Employees** | Per Works  Per month  All Works subcontractors | Number of employees (subcontractors included) present at work |
| **Worked Hours for the Employer employees** | Per Works  Per month | The hours that Employer employees were present at work |
| **Worked Hours for the Contractor employees** | Per Works  Per month  All Works subcontractors | The hours that the Contractor (subcontractors included) employees were present at work |
| **Total H&S site inspections performed by Employer** | Per Works  Per month | Number of H&S site inspections by Employer |
| **Total H&S site inspections performed by Contractor** | Per month | Number of H&S site inspections by Contractor |
| **Number of fatal accidents (Employer)** | Per Works  Per month | **Accident:** Any event which results in injury, and/or death work related.  **Fatality:** Death due to work related accident or illness. |
| **Number of fatal accidents (Contractors-Subcontractors))** | Per Works  Per month  All Works subcontractors | **Accident:** Any event which results in injury, and/or death work related.  **Fatality:** Death due to work related accident or illness. |
| **Total number of accidents (Employer)** | Per Works  Per month | Number of accidents to the Employer employees |
| **Total number of accidents (Subcontractors)** | Per Works  Per month  All Works subcontractors | Number of accidents to the subcontractor employees |
| **Accident cases with lost workdays (over 1 calendar Day) (Employer)** | Per Works  Per month | **Lost Day Case:** The employee does not have any work capacity on at least one day following the work accident |
| **Accident cases with lost workdays (over 1 calendar Day) (Contractors-Subcontractors)** | Per Works  Per month  All Works subcontractors | **Lost Day Case:** The employee does not have any work capacity on at least one day following the work accident |
| **Total Number of Incidents (Employer)** | Per Works  Per month | **Incident:** An event or chain of events which has caused or could have caused injury, illness and / or damage to (loss of) assets, the environment or third parties |
| **Total Number of Incidents (Contractors Subcontractors)** | Per Works  Per month  All Works subcontractors | **Incident:** An event or chain of events which has caused or could have caused injury, illness and / or damage to (loss of) assets, the environment or third parties |
| **Lost days (Employer)** | Per Works  Per month | **Lost days:** Number of days following the day of injury or illness that the employee did not have any work capacity, regardless of whether the employee was scheduled to work. |
| **Lost days (Contractors-Subcontractors)** | Per Works  Per month  All Works subcontractors | **Lost days:** Number of days following the day of injury or illness that the employee did not have any work capacity, regardless of whether the employee was scheduled to work. |
| **H&S Training seminars (Employer)** | Quarterly | Number of seminars performed by Employer. |
| **H&S Training seminars (Contractor-Subcontractors)** | Quarterly  All Works Contractors-subcontractors | Number of seminars performed by the Contractor-Subcontractors. |

# HEALTH AND SAFETY ORGANIZATION CHART

**Employer’s Representative**

**Project Management**

Health and Safety Coordinator

**Employer**

Programme Manager

**Employer’s Representative**

**Site Management team**

Health and Safety Coordinator

**Contractors**

**Project and Site Management**

Site Manager

Site Engineers

**H&S Manager**

**H&S Officer**

**H&S Officer**

**Subcontractors**

**Works and Site Management**

Site Manager

## RESPONSIBILITIES –ROLES AND RESPONSIBLE PERSONS

|  |  |
| --- | --- |
| **Responsible Person** | **Primary Responsibilities** |
| **EMPLOYER’S PROGRAMME MANAGER** | * Setting health and safety objectives and targets * Allocation of human and financial resources * Allocation of responsibility * Organizational arrangements * Establishment and implementation of health and safety procedures management system * Review health and safety and environmental performance * Organize for Health and Safety Audits, follow the closure actions and implementation |
| **SITE MANAGER** | * Leadership of Works personnel * Works-level achievement of health and safety objectives and targets * Works-level allocation of human and financial resources * Works-level organizational arrangements * Works-level regulatory compliance * Implementation of health and safety management system * Health and safety compliance of Works personnel * Health and safety and environmental performance * Cooperation with Health and Safety Department Manager |
| **SITE ENGINEERS** | * Leadership and supervision of the (sub)contractor(s) under their responsibility * Implementation of health and safety management system * Ensure that workers use or wear the mandatory equipment, protective devices, and/or clothing * Ensure that workers work in the manner and with the protective devices, measures and procedures required * Ensure the pre-job checklists are filled in and all preventive measures are in place * Ensure the safety equipment, tools and equipment are inspected * Review safety aspects of each task * Take part in accident investigations * Report safety problems to senior management and the health and safety department * Ensure housekeeping is at a good level * Review MSDSs before using hazardous materials * Cooperate for preparation of method statements and risk assessments * Ensure the job is performed in compliance with the applicable health and safety requirements, method statements and risk assessments * Cooperate with the health and safety department |
| **H&S MANAGER** | * Definition, planning and maintenance of the health and safety management system * Co-ordination of implementation of the health and safety management system * Monitoring of achievement of objectives and targets * Monitoring of health and safety and environmental performance * Monitoring of compliance of personnel * Monitoring of compliance of subcontractors * Monitoring of regulatory compliance * Tracking of regulatory change * Monitoring of compliance with the standards * Technical direction and advice to management * Technical direction and advice to personnel * Technical direction and advice to subcontractors * Preparation, organization and delivery of health and safety training * Preparation of health and safety and environmental reports * Preparation of regulatory reports * Review and approval of risk assessments and method statements * Investigation of health and safety and environmental accidents |
| **HEALTH AND SAFETY OFFICERS/ SUPERVISORS** | * Implementation of health and safety management system * Support and advise site personnel so as to prevent injury to personnel, damage to plant and equipment, fire, ensuring environmental protection and site security * Monitoring compliance on site with all relevant statutory, regulatory, contractual and company requirements * Monitor the effectiveness of the Health and Safety System * Monitoring application and availability of pre-job checklists * Co-ordinate activities with the line managers, responsible engineers and subcontractors with respect to health and safety requirements * Ensure that accidents/incidents are recorded, investigated and analyzed * Maintain appropriate records and documentation for the duration of the Works * Day-to-day site inspections of equipment, machinery, PPE, excavations, scaffoldings, confined spaces, etc. and fill in checklists |
| **EMPLOYER’S REPRESENTATIVE**  **HEALTH AND SAFETY COORDINATOR** | * Development and completion/handover of the Health and Safety File * Coordinates the Safety Officers of all contractors * Gives precise instructions to his subordinates regarding the safe execution of the works * Coordinates the works with the contractors in order to avoid possible misunderstandings * Ascertains that all employees know the place where they will receive First Aid. * Signs the relevant forms, as defined by his duties deriving from relevant legislation. * Coordinates the implementation of health and safety procedures and reviews/adjusts the Health and Safety System. |
| **DESIGNATED SAFETY OFFICER** | * Advice and consults about health and safety issues. Comments or proposals may be either oral or in written, in subjects concerning the matters of occupational health and safety as well as the prevention of working accidents. |

Responsible Persons may delegate and/or designate specific tasks to any other person only where such persons are competent, have sufficient authority to carry out the task(s) and have the minimum qualifications the Romanian legislation requires. In this context the above-mentioned primary health and safety responsibilities of the Health and Safety Manager/ Health and Safety Supervisor/ Health and Safety Coordinator/ Health and Safety Officer could be designated to one person.

# EMPLOYER’S REPRESENTATIVE ROLE

In addition to the primary responsibilities listed in the table above, the Employer’s Representative Project Team shall be responsible for the following:

* 1. Act as Employer’s Health and Safety Coordinator and discharge all legislative requirements of this role on behalf of the Employer.
  2. Ensure that the contractors consider safety in design, and review design risk assessments as required.
  3. Develop a Project Health and Safety Plan for each site as the Health and Safety Coordinator, and issue it to contractors for incorporation into their individual Health and Safety Plans. Update the Project Health and Safety Plan on a regular basis as new risks and hazards arise.
  4. Ensuring that contractors discharge the Employer’s health and safety requirements and fulfils their responsibilities listed in the table above.
  5. Liaise with contractors to review all health and safety documentation including documents required to be submitted as part of these Employer’s Health and Safety Requirements.
  6. Reports to the Employer on a weekly and monthly basis with regard to health and safety performance.
  7. Manages all health and safety interfaces between contractors and implements a permit to work system where contractors are required to occupy the same working areas on site.
  8. Chairs coordination meetings at an appropriate frequency when there are multiple contractors working on site.
  9. Ensures that contractors adopt health and safety at the design stage through design risk assessments or other appropriate systems to mitigate/eliminate risk prior to construction.
  10. Carries out weekly joint health and safety audits with the contractor and monthly joint safety audits with Employer and Contractor. The Employer’s Representative shall submit the results of such audits to the Employer appended to the weekly and monthly reports. Section 9 of this document describes the Contractor’s responsibilities for site audits.
  11. Review each Contractor’s Emergency Action System and develop the Site Emergency Action System incorporating these individual systems. Any conflict between the Contractor’s systems are to be identified by the Employer’s Representative and communicated to the contractors for revision of these documents.
  12. Review each contractor’s Traffic Management Plan and develop the Site Traffic Managment Plan incorporating these individual systems. Any conflict between the Contractor’s individual systems are to be identified by the Employer’s Representative and communicated to the contractors for revision of these documents.
  13. Ensure that all incidents are reported by the Contractor and that incidents causing injuries and sickness are reported onto the Employer within 24 hours.
  14. Take responsibility for the health and safety of all Employer’s Representative staff onsite.

# HEALTH AND SAFETY REQUIREMENTS

The Contractor shall at a minimum:

1. Take all necessary safety precautions during any construction work
2. Take all necessary safety precautions to during any excavation work
3. Take all necessary safety precautions during any lifting activity
4. Take all necessary safety precautions during any electrical work
5. Take all necessary safety precautions during any work at hight and in confined places
6. Take all necessary precautions for wooden, steel-framed or suspension gangways,etc.
7. Employee and third party occupational health and safety be ensured by reducing the risk of work accidents and work-related illnesses
8. A learning culture shall be created and preventive measures be applied against non-compliances and incidents for all processes in collaboration with the employees, customers and partners
9. Be in compliance with all relevant laws and standards at the place of execution as well as internal regulations
10. Fulfil all Employer and authority requirements as well as taking all other interest groups into account
11. Set goals and constantly monitoring the suitability of health and safety systems to assure constant improvement in all work processes

If new risks are identified during works execution, which are not covered by the current Health and Safety System, then relevant procedures and work instructions must be issued and implemented under Contractor’s Health and Safety Manager’s responsibility.

The Contractor shall appoint a Site Manager for its own organisation. The Contractor’s Site Manager is responsible for the work activities and has the ultimate responsibility for any health and safety issues resulting from these activities on site.

The Contractor’s Representative shall be responsible for the overall execution and shall be accountable for health and safety issues on the Works. The Contractor’s Representative shall provide the necessary resources to ensure that the specific health and safety targets are achieved.

The Contractor shall appoint a Health and Safety Manager for the application / monitoring of the health and safety system on a daily basis. This person undertakes the role of safety responsibility for the Contractor’s members and coordinates the health and safety responsibilities of all subcontractors.

The Contractor shall establish, equip and staff a central medical/first aid facility on the site in order to provide first aid treatment for Contractor’s personnel, Subcontractor’s personnel, Employer’s personnel on site, and site visitors. These facilities shall have a first aid and ambulance service and be provided with the required medical supplies.

The Contractor shall appoint a number of Site Engineers to supervise work activities, plan these activities and supervise the Subcontractors performance and activities. Site Engineers are responsible to supervise the health and safety at their area of responsibility.

Each Subcontractor shall appoint a Site Manager who has the ultimate responsibility for Health and Safety of their works on site. Additionally, each Subcontractor shall appoint a person who is responsible for the day-to-day proper implementation of health and safety requirements on all works executed by the Subcontractor, its subcontractors, and self-employed persons. Also, each Subcontractor shall appoint a Health and Safety Coordinator and/or Health and Safety Officer of appropriate number members in line with their manpower in site to manage all health and safety matters within their scope.

For the works, Subcontractors shall carry out a works specific risk assessment, based on the method statement that they intent to implement for the subject work. The method statement and the safe work method may be integrated into one document, the Health and Safety Plan.

All equipment must be in good working condition and properly maintained. As a minimum, all site mechanised equipment must have a valid license, be insured, have reverse alarm, national check certificate and a third-party certificate if applicable. No equipment is allowed on site unless all above prerequisites are met.

All personnel on site must undergo a safe pass procedure (or day pass procedure) and no one is allowed on site if not holding a proper safe pass or day pass. Subject to the successful completion of the safe pass procedure, a safe pass and a site access card will be issued.

All scaffolds must be designed, erected, altered and dismantled by competent trained personnel and such work must be directed by a competent supervisor. Scaffolds shall be in accordance with local and/or European laws.

Scaffolds must be inspected by a competent person:

* before first use,
* after substantial alteration,
* after any event likely to have affected their stability (e.g. following strong winds),
* at regular intervals. Any faults found must be rectified.

All excavations must comply with the excavation and geotechnical studies and be inspected regularly (by competent discipline engineer) to ensure “side stability”, as well as by the supervising engineer as applicable. The Contractor shall facilitate the Employer’s inspection of any relevant documentation relating to excavation stability at all times.

All employees on site shall use at all times their Personnel Protective Equipment (PPE). Other appropriate PPE shall be used as per the works specific risk assessment.

All electrical works, including commissioning, shall comply with local law as minimum. The Contractor shall appoint an electrical engineer on site. Subcontractors performing electrical works on site shall also appoint an electrical engineer on site.

All working areas and confined spaces should be provided with sufficient lighting, in the case that the daylight is not considered enough.

All lifting equipment (cranes) shall have a valid test certificate for good and safe operation, issued by a third party. Any cranes must be inspected after installation and before operation.

Gas cylinders shall be in good condition and always kept upright and stored in properly designed areas protected against direct sunlight. All must be equipped with flexible hoses with both flame arrestors and non-return valves.

The method statements and the associated works specific risk assessment of the subcontractors shall be reviewed by the relevant Contractor. This review does not alter, minimize or affect in any way the responsibility and/or the liability of the Subcontractor.

High risk activities at night and outside normal operating hours must always be supervised.

Toolbox talks/meetings shall have a participants list with names and signatures.

Unattended mechanized equipment shall be safely parked and turned off.

# HEALTH AND SAFETY JOINT COMMITTEE - HEALTH AND SAFETY MEETINGS

An Occupational Health and Safety Committee shall be established to deal with the following:

* All health and safety matters on site
* Improving the health and safety level of the site
* Promoting safety awareness by promoting a Safety Incentive Program for the Works

The Health and Safety Committee will comprise from the following members:

* Contractor’s representatives (Contractor’s Representative/Site Manager/Health and Safety Coordinator/Health and Safety Officer)
* Employer’s Representative
* Health & Safety responsible persons (from Subcontractors)
* Others, per case

The Occupational Health & Safety Committee shall meet at least once per month. In the case of any occupational accident the committee shall meet immediately. The recorded minutes at the committee meeting will be recorded.

## HEALTH AND SAFETY SITE MEETINGS

Health and Safety will be the first topic of discussion at all site meetings. There will also be specific meetings during which health and safety will be stressed or meetings with the objective of discussing health and safety issues and enhancing the health and safety objectives.

There will be a kick-off health and safety meeting with the subcontractors before mobilization and a regular weekly health and safety meeting.

The health and safety kick-off meeting is attended by the Employer’s Representative, the Contractor’s Health and Safety Manager and the Contractor’s Health and Safety Officer and/or Site Manager, Subcontractor’s Site Manager and Health and Safety Coordinator and/or Safety Officer. The meeting will be minuted by the Contractor’s Health and Safety Department and minutes will be agreed by the participants.

A weekly mandatory meeting is attended by the Contractor Health and Safety Supervisor/Officer and Subcontractor’s Health and Safety Representative/Coordinator/Officer. As it is required, other functions and entities (e.g. security service, etc.) may participate. Site Managers can also participate.

The meeting will be minuted by the Contractor’s Health and Safety Department and minutes will be agreed by the participants. Prior to the weekly health and safety meeting a health and safety site tour will be conducted.

These weekly meetings may be included in the site construction meetings with safety taken up first on the agenda.

Other health and safety meetings might be called either by the Contractor or a Subcontractor, subject to specific issues demanding special attention.

Preconstruction meetings concerning installation of major equipment will be held. During pre-construction meetings, health and safety matters are discussed together with the Subcontractor’s method statement and Works Specific Risk Assessment. These meetings are minuted by the Contractor’s Health and Safety Supervisor/Officer and minutes are agreed by all participants. Subject to the meeting, the Subcontractor may have to revise the method statement/ Works Specific Risk Assessment.

# EMPLOYEES RIGHTS – RESPONSIBILITIES

All employees are responsible to undertake their work as planned with due consideration for health and safety matters. Specific responsibilities and authorities include:

1. Read and understand the project and their own entity’s health and safety policies and procedures and carry out the work in accordance with its requirements.
2. Work in a safe manner at all times, not taking unnecessary risks which could endanger themselves or others.
3. Ensure a pre-task briefing is held and understood prior to work commencing.
4. Wear all additional protective clothing and safety equipment required by the site rules and task specific Risk Assessment to execute the work.
5. STOP WORK when it is identified that an immediate threat to the health and safety of themselves or others – no penalties can be given to any persons stopping work on health, safety or environmental grounds.
6. Use the correct tools and equipment for the job.
7. Understand the requirement for certification of lifting tackle and gear. Ensure that it is in good condition and that they have been trained to use it.
8. Report immediately any defects or unsafe conditions in plant or equipment.
9. Where possible, contribute to the elimination or reduction of health and safety risks by suggesting continuous improvements to work processes.
10. Do not tamper or interfere with any safety precaution or control measure.
11. Report any deficiencies in the welfare facilities and report any abuse of the welfare facilities.
12. Report any injury to their supervisors, even if the injury does not prevent continuation of work.
13. Report unsafe acts or situations and near misses, both negative as well as positive observations.
14. Comply with all safety and warning signs.

# INSPECTIONS AND AUDITS

Health and Safety inspections and audits include:

* Daily Site Inspections
* Safety Walkdowns combined with regular and formal health and safety meetings
* Other health and safety inspections, regular or not (Ad–hoc, etc.)
* Health and Safety Audits

The Contractor’s Health and Safety Supervisor/Officer shall carry out daily inspections on site. These shall not be detailed and exhausted inspections which will be the responsibility of the Subcontractors. The Contractor’s Health and Safety Supervisor/Officer shall coordinate activities between the various subcontractors and inspect the common areas. The Contractor may intervene in common areas, check the application of procedures / instructions and remove materials, equipment etc. without any notice, if these consist of a hazard and/or obstacle. Any cost for removing, cleaning, etc. will be charged to the relevant subcontractor. The relevant subcontractor has no right to raise any claim for materials or equipment removed by the Contractor under this clause. The Employer’s Health and Safety Specialist may carry out on-site inspections, subject to their convenience.

A **Safety Walkdown will be taken every week** by Contractor’s Health and Safety Supervisor/Officer or Site Manager and Subcontractor’s Health and Safety Representative/Officer or Site Manager, prior to the weekly health and safety meeting. The results and/or health and safety deviations of the inspection are to be discussed during the meeting and relevant corrective actions agreed.

**Ad-hoc inspection** may come out at any time, subject to occasional findings, warnings etc.

The Contractor, subject to their discretion, can arrange comprehensive audits of the site’s conditions at intervals of 1 month. All such audits shall be recorded and documented.

The audits and inspections conducted by the Employer will be announced to the Contractor in advance according to contractual agreement.

## NON-CONFORMITY MANAGEMENT AND REPORTING

A non-conformity is any major or moderate deviation from the Health and Safety Management System requirements. A non-conformance is often an indication of a flaw in the management system that requires corrective and/or preventive actions to improve its effectiveness.

For major and moderate findings that might lead to a serious incident a Non-Conformance Report (NCR) shall be issued, defining the corrective/preventive actions to be taken, the responsible persons and the agreed closeout time schedule.

The issuer of the NCR is responsible for the continued follow-up until the non-conformance has been resolved and it is positively closed out.

Major findings are brought to the weekly health and safety meeting for information.

## WARNING AND DISCIPLINARY PROCEDURES FOR WORKFORCE

Supplementary to the Employer’s sanctioning procedure, for all personnel on site that are not complying with the requirements of the Health and Safety System and site health and safety regulations and rules, provided that all documents and regulations have been explained to the individual and were understood, the following disciplinary procedure shall apply.

The first incident shall require the individual’s Safe Pass to be taken and the individual shall undergo a refreshing training.

If the individual fails to comply for second time (not particularly the same violation) then subject to the violation he shall receive a written warning letter from the Health and Safety Engineer. In any case he is expelled permanently form site after a third violation.

Nevertheless, the deliberate taking of life-threating unsafe acts can lead to immediately being expelled from the Employer’s location without any warning.

# INCIDENT ASSESSMENT AND REPORTING

All kinds of incidents which cause injury, illness or equipment and materials loss shall be reported and filled by the Health and Safety Supervisor/Officer with the Incident Report.

All kinds of incidents which cause injury or illness must be reported to the Local Health Authority (Territorial Public Health Directorate (DSP)) by the responsible employer concerned in accordance with Romanian Law no. 319/2006 on Safety and Health at Work. Employers must also notify Labour Inspection (Inspectia Muncii) / Territorial Labour Inspectorate (ITM) within 48 hours of being informed of the accident. For fatal accidents, the notification must be immediate. Accidents resulting in severe injuries (lasting more than 3 days) or fatalities must be reported to the local Territorial Labour Inspectorate (Inspectoratul Teritorial de Muncă - ITM).

The Subcontractors are responsible to inform (verbally and in writing) immediately for any incident involving subcontractors personnel, equipment and/or materials, to the Contractor’s Health and Safety Supervisors/Coordinators/Officers.

The Contractor’s Health and Safety Supervisor/ Officer must immediately verbally inform the Contractor’s Site Manager about the incident in the case that the incident resulted in an injury or damage.

The Contractor shall inform the Employer’s Representative at the earliest time possible of major incidents at work. The incident report system of the Employer will be used for this purpose.

The Contractor’s First Aid Station will also keep full records of all treatments performed on site, including also administration of medicines to site personnel.

In order to carry out the investigation, the Contractor will arrange within 24 hours from the incident a dedicated meeting which will be chaired by the Contractor. The Employer’s Representative will also be invited to participate in this meeting.

The Contractor will complete the final report within 48 hours from the time of a reportable event. In case of any particularly complex events which may require more detailed documentation, and after obtaining agreement of the Employer, the final report can be submitted after 48 hours.

Where necessary the Contractor will send a notification of the incident to the relevant authorities, professional association or insurers, and the Employer shall receive a copy of this notification.

The Incident Register and incident statistics shall be produced by the Health and Safety Supervisor/Officer of the Contractor on a monthly basis. The Incident Register and incident statistics shall be made available to the Employer.

**Relevant Documents**: Accident Reporting Procedure

# INFORMATION AND TRAINING

The Contractor must ensure that all workers are properly educated in accordance with applicable laws, regulations, and the project's risk assessment. Each worker must possess a valid and appropriate training certificate demonstrating compliance with these requirements.

The following training will be given to the employees during the conduction of the Works.

* Orientation / Induction trainings
* During the conduction of work
* Per job training
* Toolbox training
* Planned training
* Ad Hoc training
* Workers shall be adequately and suitably:

*(a)* Informed of potential health and safety hazards to which they may be exposed at their workplace,

*(b)* Instructed and trained in the measures available for the prevention and control, and protection against those hazards.

* No person shall be employed in any work at a construction site unless that person has received the necessary information, instruction and training so as to be able to do the work competently and safely.
* Information, instructions, regular and specific trainings (including first aid and extinguisher use amongst others) shall be given in a language understood by the worker. Written, oral, visual and participative approaches shall be used to ensure that the worker has fully understood the content. For that matter, the trainer at the end of the induction shall be able to carry out a test if needed.
* Every worker shall receive instruction and training regarding the general safety and health measures common to the construction site, which shall include:

*(a)* General rights and duties of workers at the construction site,

*(b)* Means of access and egress both during normal working and in an emergency,

*(c)* Measures for good housekeeping,

*(d)* Location and proper use of welfare amenities and first-aid facilities provided in pursuance of the relevant provisions of this manual,

*(e)* Proper use and care of the items of personal protective equipment and protective clothing provided to the worker,

*(f)* General measures for personal hygiene and health protection,

*(g)* Fire precautions to be taken,

*(h)* Action to be taken in case of an emergency,

*(i)* Requirements of relevant safety and health rules and regulations.

* Copies of the relevant safety and health rules, regulations and procedures shall be available to workers upon the commencement of and upon any change of employment.
* Specialized instruction and training shall be given by the Subcontractors to:

*(a)* Drivers and operators of lifting appliances, transport vehicles, earth-moving and

materials-handling equipment and plant, and machinery or equipment of a specialized or dangerous nature,

*(b)* Workers engaged in the erection or dismantling of scaffolds and all those who work at height must have received a working at height training.

*(c)* Workers handling explosives or engaged in blasting operations,

*(d)* Workers engaged in pile-driving,

*(e)* Workers working with compressed air,

*(f)* Workers engaged in the installation and commissioning of battery modules,

*(g)* Workers handling hazardous substances,

*(i)* Workers working as signalers,

*(j)* Other specialized categories of workers.

* Wherever required by national laws and regulations, only drivers, operators or attendants holding a certificate of proficiency or license shall be employed to operate particular vehicles, lifting appliances or other equipment.

# SITE ENTRANCE

**Personnel / Site Visitors Entry**

All personnel on site assigned to work on the site have to undergo the Site Entrance Procedure (safe pass) established by the Contractor. Site visitors will undergo a day pass procedure.

The Subcontractor shall apply/notify the Contractor for safe pass, following the relevant procedure. The Subcontractor remains fully responsible for the safe pass provided, dissemination and proper use. To avoid delays, the Subcontractor shall ensure that all documents are submitted at least 24 hours prior to personnel arrival.

The Safe Pass is personal and is not transferable. If stolen or lost, it must be reported. If borrowed, then both the borrower and the lender will not again be allowed on site.

The Safe Pass includes:

* Photo
* Safe Pass Holder Name
* Company Name
* Specialty
* Issuance Date

For all visitors, a temporary, serialized access card (non-transferable) shall be provided after having registered the visitor’s name, ID info and company name in the visitor’s log.

## CONSTRUCTION SITE EQUIPMENT ENTRY

For site equipment to be allowed on site, an equipment entry pass shall be issued by the Contractor. To issue an equipment pass, the following procedure must be followed. The Contractor’s responsible department and any Subcontractor shall submit all necessary documents to Contractor’s Health and Safety Supervisor/Officer for checking. Documents include the equipment license, operator license, insurance certificate, national check certificate, and validation certificate as applicable. If the Health and Safety Supervisor/Officer is satisfied then a visual check of the equipment shall be conducted by the security at the gate. The Subcontractor’s Health and Safety Representative must perform this visual check. If both representatives are satisfied, the equipment pass is released. If not, then the person concerned and the Subcontractor shall arrange for any mishaps before a new request is made. To avoid delays the Subcontractor shall ensure that all documents arrived on time to the security desk (at least 24 hours before equipment arrival).

For all equipment’s/operators used/present at the site a register is maintained by Contractor’s Health and Safety Supervisor/Officer, with all the necessary documentation. This register is available for review by the Employer’s representatives.

# PERMIT TO WORK (PTW)

A PTW is a formal recorded process used to control work or simultaneous activities on site, which are identified as potentially hazardous. It is applied by the Contractor and it authorises certain people to carry out specific work at a specific site at a certain time.

However, the PTW should not be applied to all activities, as experience has shown that their overall effectiveness may be weakened by overuse. PTW are not normally required for controlling general site or routine tasks in non-hazardous areas.

Work Permits are required for the following:

* Commissioning / energization
* Access to and work undertaken within an electrical enclosure or building containing electrical equipment with the potential to be made live.
* Hot Works
* Lifting operations near active high voltage power lines (also when theoretically the safety distances are respected during all operations)
* Works in confined spaces
* Energization / De-energization
* Non-Planned works without work instructions in order to define the way safe to do it (depending on the complexity of the task, the permit may be replaced with a Pre-task Risk Assessment).
* Others to be defined due to specific Works constraints or according to customer requirements

These can be completed in tandem with the daily construction meeting. All persons working under the permit must sign the permit. The PTW ensures specific precautions are considered and it improves coordination of different activities

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

The following approved and certified PPE are mandatory:

✓ Safety helmet with chin strap.

✓ Protective gloves.

✓ Safety boots (steel toe, no safety shoes) against electrical shock, mechanical hazards and anti-slip.

✓ Protective glasses.

✓ High-visibility jacket.

Other PPE shall be used depending on site conditions or works such as gloves, safety glasses and protective work clothes.

All PPE must be in a proper state (pre-use check to be performed by the user) and checked by an authorized person (if applicable).

Where adequate protection against the risk of accident or injury to health, including exposure to adverse conditions, cannot be ensured by the above, suitable personal protective equipment and protective clothing, having regard to the type of work and risks, shall be provided and maintained by the Contractor and Subcontractors for their employees, without cost to the workers, as may be prescribed by national laws or regulations.

Subcontractors are responsible to procure PPE for their employees. The Contractor’s Health and Safety Supervisor/Officer checks and controls the use of PPE at site for different specific works. Personal protective equipment and protective clothing shall comply with standards set by the competent authority, taking into account as far as possible ergonomic principles.

The Contractor shall provide the workers with the appropriate means to enable them to use the individual protective equipment and shall require and ensure its proper use, storage, maintenance and cleaning.

Workers shall be required to make proper use of and to take good care of the personal protective equipment and protective clothing provided to them. Workers shall be instructed in the use of personal protective equipment and protective clothing by the pre-job, informative and toolbox trainings.

For people not using PPE, they will face the penalty of expulsion from site as per the disciplinary procedure for the workforce.

**Head Protection**

Employees working in areas where there is a possible danger of head injury from impact, or from falling or flying objects, or from electrical shock and burns, shall be protected by protective helmets. Helmets for the protection of employees against impact and penetration of falling and flying objects, (EN397 Standards).

In conditions of strong wind, workers must wear chin straps of an appropriate size to ensure helmet stability and safety.

In excessively hot weather, a sun hat must be worn. The hat should include both front and rear flaps attached to the brim to provide adequate protection from the sun.

**Eye and Face Protection**

Employees shall be provided with eye and face protection equipment when machines or operations present potential eye or face injury from physical, chemical or radiation agents. (EN166, EN169, EN170, EN171, EN172, EN175, EN379 Standards)

Welding helmets must be worn at all times during arc welding activities to ensure adequate protection.

For gas welding, gas cutting, or brazing operations, workers must use goggles or other suitable eye protection equipped with appropriate filter lenses to safeguard against harmful light and debris.

Hearing Protection

Hearing protection must be worn in all high-noise areas or wherever a high-noise warning sign is displayed, in accordance with the requirements of EN352.

Safety Belts, Lifelines and Lanyards

Lifelines, safety belts, and lanyards shall be used only for employee safeguarding. Any lifeline, safety belt, or lanyard actually subjected to in-service loading, as distinguished from static load testing, shall be immediately removed from service and shall not be used again for employee safeguarding (EN341, EN353, EN354, EN355, EN358, EN360, EN361, EN362, EN363, EN364, EN365, EN365 Standards)

**Hand Protection**

The Contractor shall select and require employees to use appropriate hand protection when employees' hands are exposed to hazards such as those of skin absorption of harmful substances, severe cuts or lacerations, severe abrasions, punctures, chemical burns, thermal burns and harmful temperature extremes. (EN420, EN388, EN374, EN407, EN 511 Standards)

During all arc welding, gas welding, and gas cutting activities, workers must wear flame-retardant gloves with protective sleeves. Exceptions are permitted only for light tasks, such as test assembly of parts, where such protection is not required.

**Foot Protection**

The Contractor shall ensure that each employee wears protective footwear when working in areas where there is a danger of foot injuries due to falling or rolling objects or objects piercing the sole. (EN344, EN345, EN347 Standards)

For recording PPE provision when receiving or replacing PPE(s), personnel shall sign for receipt, try them on for comfort, acceptance and acknowledgment of training for PPE use. HS Supervisor/officer shall monitor this process and report accordingly to the Subcontractor’s HS Responsible or/and Subcontractor’s Site manager. Records must be available for review by the Contractor’s and Employers representatives.

# HEALTH SURVEILLANCE

The Contractor will appoint an Occupational physician to supervise the health of its employees[[1]](#footnote-2). The Occupational physician shall examine clinically all Contractors’ employees. If further examinations are required, they shall notify the Contractor’s Site Management and send the employee(s) for further examinations. If a change of work position is required, then they shall notify Contractor’s Site Management accordingly.

The Occupational physician will maintain medical files of the personnel on site and will treat all personal information with care and confidentiality.

All subcontractors before starting work at site should have arranged the medical examinations for their personnel and have available (and filled) for presentation to Contractor the health report signed by a certified Occupational physician1.

All persons shall undergo medical examination according to the relevant provisions of the local law and the judgment of the Occupational physician.

For those specialised workers for whom more special examinations are required by local legislation, these will be undertaken under the direct coordination of the Occupational physician.

# FIRST AID

The Contractor shall ensure the availability of medical personnel for advice and consultation on matters of first aid. Provisions shall be made prior to commencement of the Works for prompt medical attention in case of a serious injury. Contractor will establish a team of first aiders at basic life support level, available at any time.

The Contractor and Subcontractor(s) shall be responsible for ensuring that first aid, including the provision of trained personnel, is available. Arrangements shall be made to ensure the transfer of medical treatment of workers who have suffered an accident or sudden illness.

Suitable rescue equipment, as required, including stretchers shall be kept readily available at the place notified as the infirmary.

First-aid kits or boxes, as appropriate, shall be provided at the workplaces and on motor vehicles, and be protected against contamination by dust, moisture, etc.

First-aid kits and boxes should not contain anything besides material for first aid in emergencies. First-aid kits and boxes shall contain simple and clear instructions to be followed, be kept under the supervision of a responsible person qualified to render first aid and be regularly inspected and kept properly stocked.

If a minimum number of workers as prescribed are employed in any shift, at least one suitably equipped first-aid room or station under the charge of qualified first-aid personnel, or a nurse shall be provided at a readily accessible place for treatment of minor injuries and as a rest place for seriously sick or injured workers.

Also, the First Aid Infirmary will provide consultation for sudden illness, trivial wounds due to work etc. The infirmary will be supported by a doctor, visiting the site regularly for reviewing, pharmacy, incidents book, medical stuff, providing training if necessary and reviewing infirmary performance.

All visits to the infirmary are recorded. The occupational physician is obliged to monitor the progress of all injured or ill health persons transferred to a hospital.

An ambulance service shall be scheduled to be provided on call on site to cover for emergencies.

# HOUSEKEEPING

All rubbish and waste shall be put into proper waste containers. These containers must be emptied on a regular basis to ensure the site is in a clean, safe and hygienic condition.

Considerations shall be made for the following:

* Domestic waste will be placed only in containers with a firm cover to avoid birds feeding or other animals on site.
* No refueling shall be taken on site unless this is done in a sealed area.
* To refuel portable machinery, care will be taken to avoid spills by the use of secondary containments.
* Residuals, debris, etc. will be cleaned out regularly and disposed of appropriately.
* Scrap will be selected and stored separately. Scrap shall be removed periodically.
* Chemicals and dangerous waste shall be stored separately. Specific procedures shall be in place for collection, handling, storage, etc. Disposal shall be carried out by authorized companies in accordance with local laws and legislation.
* Toxic or dangerous wastes shall be specifically identified, and procedures for collection, storage, and disposal shall be arranged by the Contractor and local authorities.
* The burning of refuse, scrap, etc. is not allowed.

It is the Contractor’s responsibility to provide and manage additional waste containers.

Other arrangements regarding good housekeeping include, but not limited to:

* Materials and tools must be stored in designated areas or storehouses, and they must never be left at other locations.
* Cars, equipment etc. must be parked in designated areas only.
* The Integrated Environmental Management plan will be adhered to.
* Any materials not stored in designated areas shall be relocated
* All chemicals, fragile materials etc. and generally materials that may cause harm when in contact, inhaled or swallowed shall be properly stored providing adequate protection and signage.
* Pallets will be stored properly at level areas to avoid slipping, collapse etc. and any damage or injury.
* Office areas and welfare facilities shall be regularly cleaned.
* Sufficient washing and dressing facilities.
* Sufficient quantity of drinkable water with appropriate labelling.
* Adequate number of toilet facilities for their personnel. They should also be responsible for cleaning these facilities daily to maintain a satisfactory hygiene level at the site.
* Sufficient facilities where their personnel could take breaks and eat. Eating within the site work areas will be strictly prohibited.
* Housekeeping shall be undertaken daily.

Prior to completion of the Works, the Contractor shall conduct a final site cleaning and remove from the site all temporary facilities, including waste materials, buildings, plumping, pipes, wiring, etc except those becoming property of Employer or those that the Employer’s Representative has specifically agreed in writing to leave the site.

# EMERGENCY

The purpose of an Emergency Action System is to implement an operational System which shall be used in the event of an emergency. The Emergency Action Systems will be developed and maintained by the Contractor’s Health and Safety Supervisor / Officer. All Subcontractors have to contribute accordingly and comply with them.

A structured system of procedures must be established to organize and monitor on-site activities, ensuring the safety of personnel and property. This system must also facilitate the safe and orderly movement of individuals in the event of an evacuation from hazardous areas.

Site Emergency Action Systems include:

* Fire Action System
* Incident /Accident Action System
* Vehicle Accident Action System
* Extreme weather conditions

All Systems shall be communicated to site personnel prior to commencement of works and will be revised during the Works execution (if required).

Subject to the associated risk for emergencies, emergency drills will be performed.

The aforementioned Action Systems, as well as the relevant instructions and procedures, are referred in the Health and Safety Emergency Procedure (Appendix A).

**Emergency Response Team**

An Emergency Response Team (ERT) shall be appointed. The ERT shall consist of Contractor’s and Subcontractors’ personnel which shall be properly trained to carry out that duty.

The ERT shall respond to any potential emergency incident. Such situations may include:

* Serious Injury / Accident
* Fire / Explosion
* Serious Vehicle Accident
* Major or Extensive Leakage/Spill
* Natural Disasters (Earthquakes etc.)
* Extreme Weather Conditions (Strong winds, rainstorms etc.)
* Structural Collapse

**First Aid Team**

A First Aid Team shall be appointed. The First Aid team shall consist of Contractor’s and Subcontractors’ personnel which shall be properly trained in first aid at basic life support level. This team shall provide First Aid and medical support (if needed) to any injured person.

**Emergency Equipment**

Main emergency equipment/means (e.g.: Alarm systems, siren, fire extinguishers, power resource, evacuation routes, First Aid Station) are featured on “site layout” and declared to all personnel.

Equipment is periodically checked by the Health and Safety Supervisor(s)/coordinator/officer for maintenance and control (e.g.: Fire extinguishers, Spill Kits).

**Training**

Every person on site must be trained in basic fire-fighting rules and in the evacuating procedure during induction training.

# FIRE PREVENTION AND PROTECTION

There are several activities and situations on site which may be a reason for and/or contribute to a fire break, if the appropriate prevention measures are not implemented.

The potential for fire during mobilization and construction phase shall be identified and assessed via a Risk Assessment Study procedure, and this shall be included in the Health and Safety Plan. Based on the assessment findings relevant arrangements and control measures shall be implemented, to eliminate, reduce or control the associated fire risks.

Such fire safety arrangements and measures and/or precautions constitute the projects' Fire System.

A Project Fire System shall define fire safety arrangements at the time, including:

* Areas of Fire Risk
* Fire Fighting Team
* Fire Prevention
* Fire Fighting Equipment
* Inspection and Monitoring
* Training & Drills
* Site Evacuation and Fire System (Layout)

The Project Fire System shall be prepared to cover the whole Works, under the responsibility of the Site Manager and the Health and Safety Site Manager/Coordinator/Officer.

The Project Fire System shall be communicated to Subcontractors. Personnel shall also be informed about fire prevention through induction and specific training (toolbox talks etc.).

Specific instructions and guidelines and/or information about fire safety management on site are referred to in Health and Safety Fire Prevention and Protection Procedure (Appendix A).

# ELECTRICAL SAFETY

Every energized battery module is classified as an enclosed electrical system, therefore all persons in its vicinity are exposed to electrical hazards. All non-electrical employees should receive basic electrical safety instructions before entering an area with energized battery modules.

A responsible technician/engineer shall be nominated by the contractor in charge, who is acting as the Nominated Person in Control of a Work Activity. This person shall as a minimum be an instructed person for electrical works. For high- and medium voltage switching operations, this person must be an electrically skilled person. All switching operations must be in accordance with the switching operation guideline in its current valid version.

Related risk assessments and method statements shall be carried out by the contractors.

In general working on live lines is not permitted. The necessary safety rules shall be followed for issuing a Permit to Work. These shall include a Lock-out-Tag-out (LoTo) procedures.

The Contractor will assign a qualified electrical engineer who is responsible for:

* Arrangements from national power network to the site transformer(s)/substations,
* Electrical supplies on site and,
* Reviewing the site’s electrical systems (network lines, electrical boards).
* Issuing the relevant Permit to Work

The following safety precautions shall apply electrical works on site:

1. Regular inspections of the electrical installations are performed by the Contractor’s electrical engineer and a checklist is used to record any findings and recommendations.
2. Access to the electrical panels is restricted to authorized personnel only. Panels are kept locked at all times and for that reason, a tag with the electrician’s name and telephone is placed on them.
3. Before construction is commenced and during the progress thereof, adequate steps shall be taken to ascertain the presence of and to guard against danger to workers from any live electrical cable or apparatus which is under, over or on the site.
4. The laying and maintenance of electrical cables and apparatus on construction site shall be governed by national laws and regulations.
5. Adequate precautions shall be taken to prevent installations from receiving current at a higher voltage from other installations.
6. Suitable warnings shall be displayed at all places where contact with or proximity to electrical equipment is dangerous.
7. Extension cables must not be open connected to each other. The best practice is using proper extension rolls.
8. Earthing/grounding of the electric equipment’s/tools shall be carried out as required.
9. Protection systems (breakers or similar) to be used at the electrical tools.
10. Subcontractors, subject to electrical scope of work, shall appoint a competent electrician responsible for their electrical installations and works.
11. For system testing and start up, a lock out tag out (LoTo) procedure shall be in place. The LoTo is subject to review by Contractor before testing starts. All Subcontractors involved in these activities, will be trained in the LoTo procedure as well as any other involved in activities affecting or affected by the LoTo procedure.

# LIFTING OPERATIONS

All lifting equipment shall have a valid third-party certificate and be operated by a competent person (operator). The Contractor must ensure that all lifting equipment is properly identified, safe for use, and maintained in accordance with the procedures outlined in the Maintenance Manual. A dedicated register of all lifting equipment must be maintained and made available, including relevant certifications and maintenance records.

The operation of lifting equipment (e.g., cranes) is strictly limited to authorised and certified personnel. The Contractor is required to provide Perpetuum with written certification for each employee authorised to operate such equipment.

A wind assessment must be carried out before the start of any works.

For all lifting operations the following will be considered:

* + Experienced slingers will be used,
  + Lifting equipment capacity is checked,
  + Travel of load is identified and creates no risk to structures, load, lifting equipment and/or lifting gear,
  + Lifting equipment and lifting gear is regularly inspected,
  + Area of lifting and travel will be defined and no works will be carried out within it,
  + Safety of nearby structures will be considered to ensure that load will not damage them,
  + Lifting equipment is properly positioned and no overturning risk exists.

No lifting equipment is allowed on site or to start operation after being assembled unless:

* + All documents and certificates have been checked by the Health and Safety Coordinator/Officer.
  + The equipment is inspected visually by the Health and Safety Coordinator/Officer.
  + A competent operator is available on site.
  + A Permit to Work has been issued.

Mobile lifting equipment checks are performed at the gate area before entering the site. For tower cranes a third-party certificate is required after installation and before operation.

The Health and Safety Supervisor/Officer’s review of documents is necessary. Visual inspection is upon the Supervisor’s discretion.

For very specific cases such as heavy loads, very big loads, long travel, other operations in the area of lifting operations and in general for any lifting operations other than routine ones, a Crane Operations System is required. Works Specific Risk Assessment shall be included in the Crane Operations System.

A competent person responsible for lifting operations shall be appointed by each Subcontractor.

# HEALTH AND SAFETY INFO FROM THE SUPPLIERS OF HAZARDOUS MATERIALS (SDS)

The Contractor shall supply and, where required by the contract, use hazardous substances that are appropriately packaged and clearly labelled to ensure the identification of the contents and the associated risks to personnel and the environment. Packaging and labelling must include all necessary information for the safe unloading, storage, and handling of the substances.

Each hazardous substance must be accompanied by a corresponding Material Safety Data Sheet (MSDS), provided in the local language. The MSDS must include details on intended use, storage requirements or restrictions, risk mitigation measures, and disposal instructions, in full compliance with applicable legislation.

The Contractor is responsible for maintaining an up-to-date inventory of all MSDSs related to hazardous substances used in connection with the execution of the work. This inventory, including a complete MSDS file, must be kept current and readily accessible. The list of products and materials must be made available in accordance with applicable legal requirements, and MSDSs must be easily accessible to all workers.

Handling, Transport, and Storage Requirements:

* + The handling, transportation, and storage of hazardous materials must comply with all relevant laws and site-specific operational procedures.

Storage of Hazardous Materials On-Site Must Meet the Following Requirements:

* + Containers must be protected; gas cylinders must be secured in an upright position.
  + A containment system must be in place to capture any potential spills, with capacity compliant with applicable regulations.
  + Where there is a risk of liquid spillage, a spill containment kit must be readily available.
  + An emergency instruction sheet, including all relevant technical data sheets, must be available on site at all times.
  + All safety data sheets must be stored in the designated storage area and must also be accessible in the work area.
  + The designated storage area must be equipped with an emergency eyewash station and a safety shower.
  + All suppliers shall provide all necessary Health and Safety information on SDS, safety instructions for handling, storing, testing, operating of the materials they supply.

An SDS folder shall be kept by the Health and Safety Officer at site.

The Health and Safety Supervisor/Officer will evaluate the Health and Safety information and issue relevant instructions as appropriate. When in doubt as to the categorization of hazardous material, the supplier shall be consulted.

Pressurized bottles shall be stored in a designated fenced open area with proper fire precautions.

Hazardous substances must be used and stored according to the Romanian legislation and Safety Data Sheets;

* + Spills can severely pollute waterways and land so it shall be ensured that the quantities of chemicals and fuel shall be stored on site to minimum practicable levels
  + All hazardous substances must be properly labelled according to the Romanian legislation, from the time they are brought onto the premises, to the time they are removed for disposal
  + For hazardous substances transferred to new containers, each new container must be labelled according to Romanian regulations and if nothing is stated in the law, they must be at least identified with the full chemical name (no abbreviations or structural formulae) and a warning describing the main hazardous property (e.g. flammable, corrosive, toxic, highly toxic, etc.)
  + Non-hazardous substances which could be mistaken for a hazardous substance (e.g. distilled water), must be labelled in order to avoid confusion in the workplace over which materials are hazardous and which are not
  + For transfers between containers a funnel or any other system shall be used to avoid losses
  + Proper segregation is necessary to prevent incompatible materials from inadvertently coming into contact
  + If working with hazardous substances appropriate PPE is being used in accordance with risk assessments and the relevant SDS

# SITE LAYOUT SYSTEM

A Site Layout System incorporating information of temporary facilities as well as construction areas and permanent installations will be developed and maintained by the Contractor and shall be included in the Health and Safety Plan. Subcontractors are responsible to provide all necessary information regarding their area of work with respect to their scope of works and comply with the Site Layout System. They shall explain it to their personnel and subcontractors. This system shall be revised when major changes take place. This shall include a site compound drawing as referred to within the Employer’s Requirements.

The Site Layout System shall give information on:

* + Site gates
  + Site offices
  + Storage areas
  + Evacuation routes and assembly points
  + Traffic arrangements
  + Parking areas
  + Waste containers
  + WC and washing arrangements
  + Canteen
  + Change rooms
  + Electrical panels
  + Networks (power, water, telephone)
  + Lay down areas
  + Fire systems
  + Areas of high risk

The Site Layout System is a working document and must be kept updated, under the responsibility of Contractor. The updated Site Layout System must be communicated and explained to Employer’s Representatives on site and Subcontractors and their personnel.

Permanent underground utilities to be taken into consideration before finalizing position of temporary facilities in site.

For traffic, speed limit is 20km/h. Violations lead to expulsion from the site immediately. All accesses and routes shall be kept free from obstacles.

Noticeboards will be installed in the site in various areas (including Employer’s, Contractor’s and subcontractors’ offices, Health and Safety Office, First Aid Station, etc.) that will contain information for the site, such as emergency phone numbers, evacuation system, location of emergency equipment, etc.

A Notice board should be placed at the site entrance clearly identifying safety as a priority.

# AIR AND NOISE POLLUTION PREVENTION

To protect the environment and the workers against a high level of air pollution, noise and vibrations, the Contractor shall follow the requirements of the Integrated Environmental Management Plan included in Appendix 03 of the Employer’s Requirements. In addition the following measures shall be implemented:

* + To minimize the disturbance on the construction site area noise and vibration are to be reduced to a reasonably feasible minimum
  + All activities and equipment on site shall comply with the applicable statutory regulations
  + Machinery and vehicles must be inspected and maintained to ensure noise and pollutant emission within acceptable levels
  + The speed of vehicles must be reduced, especially near urban centers and residential areas
  + Machinery and equipment have to be switched off when not in use
  + Besides the inspections of the equipment, the use of low-noise machinery shall be taken into account preferably during the construction phase
  + The amount of noise generated on site is to be kept to a minimum; generators, compressors and other noisy Plant are to be muffled
  + Construction site and accesses must be watered, if necessary. Recycled water out of sediment shall be used for dust suppression
  + Machinery and vehicles shall be equipped with particle filters
  + If necessary tires of the vehicles are cleaned before they return to public roads

# WASTE MANAGEMENT

The Employer seeks to minimize the generation of waste on the construction site. To achieve this objective every party involved on the construction site should apply the waste hierarchy: REDUCE, REUSE and RECYCLE.

Before placing an order or entering into a contract with any carrier responsible for waste transportation, the Contractor must obtain a copy of the carrier’s license or proof of registration as an authorized waste carrier with the relevant local authority. A copy of this authorization must be retained on site within the environmental documentation file.

Waste must be removed from the site regularly to comply with legal storage limits, in accordance with applicable legislation. In the absence of specific legal requirements, the Contractor must adhere to the following limits:

* + A maximum of 100 m³ of non-hazardous waste, stored for no longer than 6 months.
  + A maximum of 20 m³ of hazardous waste, stored for no longer than 3 months.

Waste management and disposing off shall be always in compliance with the legislation and the Integrated Environmental Management Plan included in Appendix 03. The Contractor shall comply with the following:

* + If it’s not possible to reuse or recycle solid inert wastes, it shall be disposed of to a licensed landfill site
  + A specific area is designated and signed for the storage of waste on the construction site. Under no circumstances the waste storage area must be within 50 m of a water course
  + Hazardous and non-hazardous waste shall be collected separated and disposed of periodically by a certified waste disposal company as required by statutory regulations
  + Containers shall be suitable to contain each type of waste
  + Hazardous waste containers must be completely sealed (if not, containers shall be placed in an impermeable area or within a secondary containment system) be equipped with a lid or protected and identified accordingly to statutory regulations

# HEALTH AND SAFETY PLAN

The Contractor will prepare a Works Health and Safety Plan (HSP) and a Health and Safety File (HSF). The HSP is essentially a complete study that includes the measures to be taken as well as any other elements that must be applied at the construction site to improve working conditions and prevent accidents at work and occupational diseases.

HSF is a document with all necessary information, data and instruction to be considered for the operation, maintenance, changes, modification of a technical Works, regarding health and safety.

Th Contractor will submit the HSP and preliminary HSF to Employer for approval before commencement of works. The Contractor will submit the HSF for approval before Works completion.

# RISK ASSESSMENT

Part of the HSP is the risk assessment which is the systematic identification of potential hazards in the workplace by personnel as a first step to controlling the possible risks involved. The risk assessment shall assess the risk that may be present in all work activities and may identify particular areas for more detailed 'specific' assessments.

Potential risks identified during the execution of works will be instantly analyzed and the risk assessment table will be updated accordingly.

Based on the findings and output of the risk assessment, hazards will be communicated to the personnel via induction, specific training and site instructions.

According to the Risk Assessment methodology each activity is broken down to tasks, it considers the hazards associated with each task and assesses the risk by assessing the likelihood of an event of a particular severity to occur and multiplies this likelihood with the corresponding severity. Always the worst-case scenario is considered.

The following formula applies for the Risk quantification (as described above):

**Risk = Likelihood x Severity**

Risk methodology follows the 1-5 rating for each component, resulting finally in the following risk classification:

* Very Low (1) : Work may proceed when the identified controls are in place.
* Low (2-4): Work may proceed when the identified controls are in place.
* Medium (5-10): Work may proceed when the identified controls are in place. A safe system of work, method statement, safe working instruction, or equivalent, shall support these activities.
* High (11-16): This is an activity with inherently high risks which must be controlled. The activity may proceed if the appropriate formal measures are implemented to reduce and control the risk (e.g., method statements, permits to work, specialist training, specific engineering controls, etc.).
* Extreme (17-25): Intolerable - The activity must not progress until controls are put into place to adequately control the risks.

|  |  |
| --- | --- |
| Occurs frequently, expected (e.g., daily) | **Almost Certain**  **(5)** |
| Occurs often, common(e.g., weekly) | **Likely**  **(4)** |
| Likely, probable(e.g., annually) | **Possible**  **(3)** |
| Unlikely, un-common(e.g., once in business) | **Unlikely**  **(2)** |
| Extremely unlikely, rare(e.g., neverrealized in business) | **Rare**  **(1)** |

**Table: Probability Matrix**

|  |  |
| --- | --- |
| Fatalities (multiple). | **Critical (5)** |
| Single fatality or disabling Injuries (i.e., amputations, loss of sight, etc.). | **Major (4)** |
| Broken bones, musculoskeletal injury, significant burns (significant absence from work).) | **Moderate (3)** |
| Basic medical treatment (not amputations or broken bones), lost time or restricted workday incident - quick return to work (absence beyond the shift it occurred). | **Minor (2)** |
| Minor injury, no worse than first aid required – First aid Incident only. | **Very Minor (1)** |

**Table : Impact matrix**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | **Severity** | | | | |
|  |  | **Very low** | **Low** | **Medium** | **High** | **Extreme** |
| Propability | **Almost Certain**  **(5)** | Medium | Medium | High | Extreme | Extreme |
| **Likely**  **(4)** | Medium | Medium | High | High | Extreme |
| **Possible**  **(3)** | Low | Medium | Medium | High | High |
| **Unlikely**  **(2)** | Low | Medium | Medium | High | High |
| **Rare**  **(1)** | Very low | Low | Medium | Medium | High |

**Table : Risk Matrix**

Completing a risk assessment with safety measures proposed, it is expected that the residual risk is Low or Very Low.

For further information regarding the Risk Assessment Study methodology please refer to the relevant procedure of Appendix A.

# SAFETY SIGNS

Signs and symbols shall be placed following the Risk Assessment Study’s provisions and shall be visible at all times when work is performed.

Safety signs shall be of appropriate size and compliant with the applicable relevant color codes etc. Mainly, the content of these signs is prohibitory, mandatory, warning and informational.

All signage on site must be clear and easily understandable to all workers, regardless of language or background. The Contractor is responsible for ensuring the placement of sufficient and appropriate signage throughout the site. At a minimum, the following signs must be installed:

* Project information panel displayed at the site entrance
* Personal Protective Equipment (PPE) usage requirements
* Speed limit signs
* Speed bump warnings
* Emergency assembly point location
* No smoking area designation
* Hazard warnings
* General warning signs
* Fire safety and first aid signage
* Identification of underground and overhead utilities crossing the site
* Location of emergency devices

In addition, the Contractor must supply and install an emergency audible alarm system on site. This system must include multiple sound sources if necessary, depending on the size and layout of the site, to ensure full coverage and effective alerting in case of emergency.

# MOBILE PHONES AND COMMUNICATIONS

Site communication will be conducted via wired and mobile phones. Emergency phone numbers will be communicated to all employees in the site. Dangerous areas relevant information will be provided by appropriate marking/labelling.

There must be no communication dead zones on site, including road access areas. In any work zone where mobile phone coverage is unavailable, the Contractor must implement alternative communication systems such as Wi-Fi networks, radio systems, or satellite communication to ensure continuous connectivity.

Each Contractor is responsible for providing and maintaining the necessary equipment to ensure direct and reliable communication between safety managers, supervisors, first aid personnel, and fire response teams.

Use of mobile phones is prohibited, when:

* operating construction equipment,
* working at heights,
* refueling,
* in the vicinity of electronic equipment,
* working on a portable ladder,
* driving.

The use of mobile phone is allowed in emergency situations, if this does not constitute a hazard itself. To ensure that everyone knows what role they have to carry out when an accident occurs, this instruction has been created to be followed rigorously by every participant.

# MONTHLY HEALTH AND SAFETY ACTIVITY REPORTS

The Contractor, at the beginning of each month, issues a Health and Safety report to the Employer, incorporating the following information:

* Executive summary
* Major actions during the reporting period
* Areas of concern - proposals
* Objectives achieved
* Objectives not achieved and why
* Objectives for next period
* Statistics (KPI’s)
* Other

The Contractor shall obtain also information and data for above fields from Subcontractors.

# TRANSPORTATION

This section outlines the minimum standards, responsibilities and appropriate guidelines in order to ultimately eliminate or reduce, the number of road traffic incidents and to promote transport safety at site. It also outlines responsibilities, practices related to safe driving and journey planning when road transports/journeys have to be made by the use of Works vehicles, etc.

## TRAFFIC MANAGEMENT

This section outlines the procedures and responsibilities for the correct use of motor vehicles, in order to prevent accidents whilst personnel are driving Works vehicles. It further sets out the minimum standards for safe driving and vehicle maintenance.

The Contractor must adopt all reasonable measures to manage and minimise interference with local traffic. The presence of the construction site must be clearly indicated with an adequate number of warning and informational signs. Where necessary, a traffic signalman shall be deployed to manage both local and site-related vehicle movements. If temporary traffic interruption is required, the use of mobile traffic lights is recommended.

To ensure the safe execution of traffic operations, the Contractor shall implement the following measures:

* Traffic and Pedestrian Control: Appropriate and effective traffic and pedestrian control measures must be implemented in all areas where road traffic may pose a risk to pedestrians.
* Signage: All internal roads and pedestrian paths must be clearly marked with appropriate signage.
* Speed Limits: A site-specific speed limit must be established and indicated with signage. Regardless of posted limits, vehicle speeds must be adjusted to suit prevailing weather, visibility, and traffic conditions. In adverse conditions (e.g., fog, rain, hail, thunderstorms, dust, or strong winds), speeds must not exceed 20 km/h, and safe distances must be maintained.
* Vehicle Communication: Effective communication between vehicles and machinery is essential. Drivers must follow established communication protocols and, where necessary, be trained in the use of two-way radios. Hand signals may be used to attract the attention of operators. The use of mobile phones while driving is strictly prohibited.
* Temporary Parking: Temporary parking areas must be clearly marked using reflective cones, flashing lights, or other visible indicators, including those visible at night.
* Parking Organisation: Parking areas must be clearly defined and separated by vehicle type (e.g., heavy machinery, trucks, personal vehicles).
* Separation of Traffic and Pedestrians: Vehicle routes and parking areas must be physically separated from pedestrian zones, including offices, walkways, and pedestrian crossings.
* Cable Crossings: Where cables cross internal roads, protective cable ramps must be installed.
* Delivery Scheduling: Site deliveries should be scheduled, where possible, during daytime working hours to minimise disruption to the local community.
* Operator Visibility: Personnel working near machinery must always remain within the operator’s line of sight.
* Traffic Coordination: The Contractor must coordinate with interface contractors to establish and maintain a unified traffic management system for the site.
* Deliveries to the construction site shall be planned (where possible) to be performed during daytime working hours. Disruption to the local community shall be kept to a minimum.
* Those people that have to work close to machinery must always keep in mind to stay within the operator’s visual field.
* The Contractor shall liaise with the Interface Contractors to agree a traffic system for the site.

**Safe Drive Training and Qualifications**

The Contractor shall ensure that personnel driving Works vehicles have the correct licenses and permits required by the local laws.

The need of refresher training and assessment shall be based on driving performance (e.g. after an incident or after multiple complaints on driving behaviour) and risk exposure, after a suitable period.

Safe Driving Instructions:

* Avoid driving while tired
* Do not drive under the effect of alcoholic drink or medicine/drug that could impair the ability to drive safely
* Observe all road signs and speed limits
* Do not follow previous vehicles too closely
* Use the turn signals to alert other drivers of your intention to turn or change lane
* Keep lights on all times
* Keep turn signal lights, brake lights, headlights and windows clean
* Keep in mind defensive and environmentally friendly driving rules
* Always wear seat belt
* Keep the rule “Engine on – Phone off”
* Be prepared in how to act in case of emergency or incident
* Report any observed incidents or near misses

Works Vehicles Maintenance

All Works vehicles shall be kept in a fully maintained and serviceable condition.

Maintenance shall be carried out to a Planned program and in accordance with vehicle manufacturer’s specifications and documentary evidence / log books kept up to date for all servicing performed.

All major maintenance and servicing shall be performed off site at licensed vehicle maintenance workshops.

Any noted damage to a Works vehicle shall be formally recorded and repaired where practicable, during maintenance periods.

Safety Equipment

Vehicle safety equipment shall be checked and updated where necessary. This may consist of:

* Fire extinguishers
* First Aid kit
* Tools
* Signs and signals
* Safety / seat belts.

All personnel driving to or from the site shall use the national road network. Transportation shall be made with care in order to avoid damages to the road network, the environment and adjacent properties.

In the case where an outsourced transport service vehicle (e.g. bus) is used for the transport of personnel to or from the site, it is Contractor’s responsibility to investigate, apply and receive all transportation permits, certificates etc. and pass any national checks from relevant local authorities, traffic police etc. in accordance to the local laws.

Business road travels should be only undertaken:

* If the physical presentation of personnel is deemed necessary for the achievement of business objectives and cannot be replaced by any other means of distance communication (e.g. teleconference)
* After the exclusion of any safer journey options like air travel, rail, etc.

Where needed a Journey Management System shall be prepared as mentioned below.

A Journey Management System, shall:

* Define the route
* Be scheduled carefully to avoid night driving
* Take into account road hazards and weather conditions
* Adhere to the legal restrictions on driving times and distances (where required)
* Dictate when and where to take rests
* Allow extra time to account of unexpected delays
* Take into account and stay in communication

# ALCOHOL AND DRUGS

Alcohol is strictly forbidden on site at any time, either before/after work or during the working hours.

Drugs, alcohol and weapons are not allowed on site and signs are used on site to remind employees such restrictions. Even more, induction course explicitly forbids the aforementioned items. Engine drivers and high-risk operators may be requested by the site manager and at exceptional circumstances to take alcohol or drug tests. Any medications taken under a doctor’s prescription are allowed subject to registration with infirmary after a prescription check.

The Contractor and all Subcontractors must ensure that their personnel do not consume or are not under the influence of drugs or alcohol while on the Construction Site.

Perpetuum reserves the right, at its sole discretion, to engage external consultants to conduct random checks on workers suspected of being under the influence of alcohol or drugs. In the event of positive test results, Perpetuum may increase the frequency and scope of testing to include daily screening of all individuals entering the site.

Furthermore, if there is a documented history of repeated substance abuse incidents within the site perimeter, or based on historical data relevant to the country in which the site is located, Perpetuum may require access control audits of up to 100% of site personnel.

# SMOKING POLICY

Smoking is forbidden on site and is only allowed in designated areas. There will be designated areas for smoking, properly equipped with ashtray, fire extinguisher and protection from sun or rain.

# HEALTH AND SAFETY PROCEDURES AND WORK INSTRUCTIONS

The Health and Safety System is supported by the relevant health and safety procedures in order to ensure the safe execution of works so as to prevent injury to site employees and damage to equipment.

They provide methods and measures on safe and environmentally friendly working and also define the actions, responsibilities and health and safety arrangements within the specific Works organization. Health and Safety Work Instructions are also supported by relevant inspection checklists and toolbox talks that promote the proper implementation of a safe work system.

All standard health and safety procedures are included in Appendices A and B to this document. Additional health and safety procedures if required, shall be issued prior to the commencement of the relevant works.

Subcontractors shall adopt these Employer’s Health and Safety Requirements as well as Appendices A & B.

# WEATHER CONDITIONS

Special conditions, which cause or can cause impact to the safety of people and / or restrictions to the works, are here described:

* Gusts of wind
* Variations of weather conditions during the day
* Excessive dust concentration in the internal road network
* Poor rural road network on the way to the site. The condition of the public road could affect the time needed for medical care in case of emergency
* In case of lightning storm / thunderstorm, the work area must be immediately abandoned and any work activity may be resumed once the storm has passed

As weather conditions at site may be severe, Contractor/Subcontractors must make the following arrangements, as a minimum:

* Provide enough capacity of rest area,
* Make arrangements for work under low/high temperatures,
* Have in place a system to re-commence activities following periods of inclement weather
* Provide functional personnel protective equipment related to weather conditions,
* Ensure safety measures are in place during works (lifting works, works at height, etc.) under windy conditions.

Weather conditions must be checked before any lifting operation, particularly wind speed limits, lightning and visibility conditions. Lifting operations can only be executed when allowed by the weather conditions. Weather forecast and weather conditions have to be recorded.

For activities exposed to microclimatic variations and high heat risk, the Contractor must provide specific and detailed information regarding microclimate conditions. This includes the identification of potential risks and the implementation of appropriate preventive and protective measures to safeguard worker health and safety.

The above list is not exhaustive and other arrangements might be required before, during or after the period of adverse weather.

High-temperature work includes activities such as welding, flame cutting (oxy-fuel), burning, grinding, and the use of torches. Each Contractor operating on the Construction Site must implement a Hot Work Program, which includes a Permit to Work system where applicable.

All hot work must be carried out in a designated Safe Welding Area (SWA). If it is not feasible to use a permanent SWA, a Temporary Safe Welding Area (SWAA) must be established on site, incorporating the following safety measures:

* Unless specifically authorised, all welding and flame cutting operations must be conducted within the designated Safe Welding Area.
* The SWA must be located at a safe distance from flammable materials, dense vegetation, and fuel sources (e.g., oil or diesel storage). If diesel or gas systems such as pumps, pipelines, or tank batteries are nearby, the SWA must be situated at least 35 metres (100 feet) from such installations.
* If hot work must be performed near movable combustible materials, these items must either be relocated to a safe distance or adequately shielded to prevent exposure to heat, sparks, and debris. Protective barriers must also be used to safeguard nearby structures.
* All hot work equipment and the designated work area must be inspected prior to the commencement of any high-temperature activity to ensure safe working conditions. This includes testing for explosive atmospheres in vessels, piping, and confined spaces.
* Only certified personnel or welders are permitted to perform hot work.
* All fire protection measures must be implemented and documented in the Hot Work Program. This includes the availability of fire extinguishers, assignment of a fire watch following completion of hot work, and the presence of fire trucks if there is a risk of fire spreading.

Actions to be taken in case of emergency because of severe weather conditions are referred in Emergency Procedure (Appendix A).

# WORKING AT HEIGHT

“Work at Height” is defined as work in any place, including a place at or below ground level and roofs, where a person could fall a distance liable to cause personal injury. As a minimum, according to Romanian legislation, all work performed with a potential fall distance of 2m. or more shall be considered using formal documented risk assessment to determine whether the fall would be likely to cause personal injury. This reference height may be reduced (e.g., to 1.2 metres) if specified by Perpetuum site-specific requirements. Working at height refers to any activity—whether permanent or temporary, such as unloading materials—that exposes workers to the risk of falling from a height greater than 2 metres above a stable surface.

Access and egress to a place of work can also be work at height. It does not include stairways (after completely assembled), slips, or trips on the same level.

Working alone at height is not permitted. Tasks are usually assigned to teams of at least two competent persons and may require a PTW.

Every person working at height must:

* Have an up-to-date medical certificate, proving they are in a healthy condition to do the job
* Be qualified and trained in the right handling of various devices like safety harnesses, fall arrest lanyards and connectors
* Have received an appropriate training for climbing and rescuing from height from a competent person/accredited training company
* Have the correct fall protection equipment for the risks that will be performed and with inspections up-to-date
* Be competent to perform the work he was nominated to do

Work at height equipment includes the following items:

* Fixed and mobile scaffolds
* Mobile access platforms
* Powered access platforms: scissors lifts, boom lifts, MEWP
* Full body harnesses/personal fall arrestors
* Lanyards / Shock absorbers
* Fall stop systems
* Lifelines (including anchor points)
* Carabiners
* Ladders
* Safety nets
* Inertia reels

**Key Risk Categories Associated with Working at Height:**

* Falls from height
* Falling objects
* Interference from other activities or equipment

**Fundamental Safety Rules for Working at Height:**

* Select and use the most appropriate equipment based on the nature of the task and associated risks
* Install scaffolding and platforms in compliance with applicable regulations and best practices
* Clearly define and demarcate the work area
* Prevent access beneath elevated work zones and ensure safe handling and movement of materials at height
* Use Personal Protective Equipment (PPE) and Collective Protection Devices (DPC) correctly and consistently

**Additional Requirements:**

* **Working alone at height is strictly prohibited.** Tasks must be assigned to teams of at least two competent individuals and may require a Permit to Work (PTW).

As a high risk activity, it is important that any work at height operation is systemized. As falls are major causes of accidents, precautions must be taken, either to prevent a person from falling or, if that is not practicable, to prevent the fall from leading to serious injury.

Suitable equipment shall be provided to give safe access to high areas of work, for example: ladders, tower scaffolds, independent scaffolds, mobile working platforms, etc.

Where it is necessary for a person to kneel or crouch near an edge, an intermediate guard-rail shall be provided unless other precautions, such as the use of a safety harness, are taken. On a large area, where work does not have to be carried out at or near the edge, a simple barrier, consisting of crossed scaffold tubes supporting a tubing guard-rail, may be used to limit the extent of the working area.

All openings in accessible areas shall be protected by guard-rails and toeboards, or by substantial covers which must either be fixed or suitably marked. It is strongly recommended that covers are both fixed and marked.

Barriers shall be high and strong enough to stop a person who is rolling or sliding down a roof slope. Platforms shall be positioned so that they will stop a fall from the roof. An intermediate guard-rail, or other barrier, will be required where persons need to kneel or crouch near the edge. The need for a barrier at the gable edge shall also be considered. Appropriate precautions against falls will be determined by the type of roof and the nature of the work to be carried out.

In some cases, a working platform, fitted with guard-rails and toeboards, situated on the roof, may be used as an alternative to a barrier or platform at the roof edge. This applies particularly where the steepness of the slope or the type of surface could lead to an insecure foothold.

Scaffolding shall only be erected/adjusted/dismantled by qualified competent scaffolders. Any area of scaffolding which is not in good order, must be guarded off from areas required to be used and have ‘Scaffolding incomplete – do not use’ sign displayed on it.

Scaffolding shall be inspected daily by a competent person and after an adverse condition. All working platforms above 2 metres (according to the Romanian legislation) where it could be possible for someone and/or material/equipment to fall, must be fitted with guardrails and with toeboards to the outside edges and the ends of the platforms. All ladders must be secured into position preventing them from slipping/moving. The ideal angle for a ladder is 4 (vertical) to1 (horizontal) ratio degrees. Safe opening must be provided in guard-rails and toeboards for unobstructed ladder access. Ladders must be extend at least 1 metre above the landing level for adequate handhold.

Damaged ladders must not be used.

Should an injury or any incident happens requiring immediate attention (rescue, first aid, etc), the Emergency Procedure (Appendix A) shall be applied.

**Restraint Systems**

If it is not possible to eliminate the risk of falling from height, the Contractor must design and implement an appropriate fall protection system. All fall protection systems and devices must be inspected and maintained in accordance with the manufacturer’s recommendations and the frequency required by local regulations. The Contractor shall:

* Provide detailed training and instructions for system installation
* Conduct final and periodic inspections of the system
* Perform all required load testing
* Provide training to end users
* Supply all legally required certification documents

The length of restraint ropes must be proportionate to the potential fall height. Anchor points (lifelines) must be positioned at the highest possible location and, where movement is required, a double anchor point system must be used. Rigid or flexible anchor lines must be suitable for the maximum number of users.

**Handrails and Guardrails**

Handrails and guardrails are essential for preventing falls to lower levels, such as around excavation areas. If installed, they must be securely anchored to prevent accidental displacement caused by wind, personnel, or equipment.

**Scaffolding and Mobile Scaffolding**

Where appropriate, scaffolding must be used and erected in accordance with applicable laws and best practices. A competent and certified person must be appointed to oversee all scaffolding activities. If the scaffolding differs from standard certified designs, a dedicated structural plan must be developed.

The Contractor must implement a scaffolding safety procedure that includes:

* A register and site map of all scaffolding, with a marking system indicating safety status (e.g., Assembled/Safe or Under Construction/Unsafe)
* A list of personnel authorised to assemble, use, and dismantle scaffolding
* Daily inspections and additional checks following adverse weather conditions
* Clear signage indicating maximum load capacity
* Daily visual inspections by users before use; unsafe scaffolding must be isolated until inspected
* Electrical grounding for scaffolding over 20 metres using a cable with a minimum cross-section of 25 mm²
* Use of clean, corrosion-free, defect-free materials; scaffold boards must be unpainted, free of cracks and deformations
* Prohibition of climbing or working from railings or support elements
* Mobile scaffolding must be stable, complete with platforms, toe boards, mid-rails, and top rails over 1 metre high
* Access to elevated work areas (>1.8 m) must include trapdoors
* PPE requirements and signage during assembly and dismantling
* A posted sign confirming vertical alignment, anchoring, completeness, and the name of the responsible person

For photovoltaic installations, mobile scaffolding or safe mobile equipment must be used for panel installation at elevated levels. The risk assessment must include the use of mobile scaffolding. For scaffolding over 10 metres or with non-standard geometry, a structural design is required.

**Note:** Local regulations apply where they are more stringent.

**Lifting Platforms**

Where applicable, lifting platforms must be used and operated only by trained and qualified personnel. The Contractor must:

* Provide operator training
* Submit written certification to Perpetuum for each authorised operator
* Maintain all lifting platforms in accordance with the manufacturer’s guidelines
* Prohibit walking on lifting platforms
* Equip platforms with emergency lighting, night-use lighting, and reverse alarms

When unattended, platforms must be fully lowered, controls set to “off” or “neutral,” power disconnected, brakes applied, and wheels blocked if on a slope. Ignition keys must be removed and stored securely

* Ensure wheels are locked before unloading
* Require the use of safety harnesses when operating the platform
* Instruct operators to avoid tipping risks on slopes or uneven terrain
* Prohibit use of aerial platforms in wind speeds exceeding the manufacturer’s specified limits.

# MATERIAL HANDLING AND STORAGE

All incoming materials/products delivered on site shall be properly handled, stored, packed and preserved according to the instructions issued by each Supplier, so as to ensure that their characteristics will not degrade.

A prescribed storage classification system shall be established in order to ensure proper allocation and methods of storage of items for securing them against possible damage. Each Supplier ought to define the storage class of its product before its delivery on site.

Generally, the storage classification system is as follows:

* Stored in premises
* Stored in closed buildings
* Stored outside and protected by a tarpaulin
* Stored outside – short term storage (0 to 6 months)
* Stored outside – long term storage (6 up to 12 months)

The incoming materials shall have a receiving inspection upon the arrival at site. This shall include as minimum a visual check, quantity check, and documentation control.

The Health and Safety Supervisor/Officer ensures that suppliers satisfy their statutory health and safety obligations regarding materials and equipment to be integrated to the Works or used in the Works.

When components are stored in open areas, they must be protected from bad weather conditions. Products shall be stored without being in contact with the ground so as to prevent the undesired consequences of water stagnation. On the other hand, closed storage areas must be properly ventilated when required by the material supplier.

Pallets will be stored properly at levelled areas to avoid slip, collapse etc. and any damage or injury.

Transportation and handling of materials and equipment shall be done with care to prevent damage. If the products require special handling, as specified by the supplier, they shall be handled according to the relevant instructions given.

Special handling tools and equipment shall be periodically checked and controlled to assure their proper operation. Operators of special handling tools and lifting equipment shall be experienced or trained in the use of the equipment.

All chemical and hazardous materials must be supported by Safety Data Sheets (SDS) which have to be issued to the Site Management prior to arrival of such items at site. Materials that are considered as being dangerous must be reported to the Site Management by the Supplier prior to arrival at site.

The control, transportation, storage and handling of chemical and hazardous materials shall be done according to supplier/manufacturer instructions (SDS), in a manner that will not cause harm to personnel and the environment.

Chemical and hazardous materials shall be stored on impermeable ground with surrounding bund (secondary containment) in order to avoid potential leakage. The area should be equipped with appropriate means for spill control (e.g. soil, wood shavings, etc.).

# MANAGEMENT OF INTERFERENCES

The Risk Assessment Document and the Emergency Plan must be updated with all relevant information provided by each Contractor. These documents must include the management of interferences between activities, workers, and contractors, and outline all necessary measures to prevent or reduce risks arising from such interferences.

The Contractor’s Site Manager must hold a weekly HSE coordination meeting with Perpetuum representatives to plan and manage the upcoming week’s activities. Minutes of these meetings must be shared with all participants and immediately submitted to Perpetuum and other responsible Contractors. Perpetuum will participate in these meetings to support coordination among all parties.

If interference risks are identified before the start of daily activities, the Safety Supervisors and Managers of the Contractors must:

1. Correctly identify interference-related risks;
2. Ensure the implementation of appropriate prevention, protection, and coordination measures, including the selection of suitable PPE and collective protection devices (DPC);
3. Appoint a single responsible person to manage interactions between teams.

An Active Safety System must be implemented to reduce the likelihood of accidents by assisting operators and drivers in real-time. This system is especially recommended for isolated construction sites and complex operations. The system must be capable of:

* Minimising the risk of collisions between workers and vehicles;
* Assisting drivers in critical situations to prevent accidents;
* Monitoring, in real time, the presence of personnel in high-risk operational zones.

# DOCUMENTATION AND INFORMATION REQUIRED FROM THE CONTRACTOR

Before commencing on-site activities, the Contractor must submit the following HSE documentation to Perpetuum. Additional clarifications or documents may be requested to validate compliance:

* Risk Assessment Document
* Environmental Management Plan
* Waste Management Plan
* Emergency Plan
* All personnel appointments, including HSE staff and supervisors, along with their legally required training certificates
* Traffic Management Plan

# INSPECTIONS AND MONITORING

**Conducted by Contractors**

The Contractor must implement a system to ensure continuous monitoring of HSE compliance on site.

* Inspections: Contractors and Subcontractors must conduct frequent inspections based on site activities to identify hazards and verify safe work practices. Daily visual inspections of tools and vehicles must be performed before each shift. Monthly documented inspections of all equipment must also be conducted.
* Site Inspections: The Contractor’s HSE personnel must carry out at least weekly inspections to verify the implementation of the Risk Assessment and Environmental Plans. Reports must be kept on site and made available to Perpetuum.
* HSE Meetings: Weekly HSE meetings must be held with Perpetuum and Subcontractor representatives to coordinate ongoing activities and prevent interferences. These meetings must inform all workers of potential risks, especially those arising from simultaneous operations.
* If new risks are identified, a revised assessment must be conducted and documented in the meeting minutes.

Meeting minutes must include:

* Date of the meeting
* Names and signatures of participants
* Topics discussed, including planned activities, affected areas, and any special processes
* Assessment of interference risks and corresponding control measures
* A HSE meeting must also be held whenever a new Contractor begins work on site.

The Contractor must ensure that inspections by Perpetuum, external consultants, or third parties are conducted safely, with prior communication of site risks, provision of PPE, and emergency instructions.

**Conducted by Perpetuum**

To verify HSE compliance, Perpetuum reserves the right to conduct periodic on-site inspections, including:

* ECoS (Extra Checks on Site)
* HSEQ Reconnaissance
* Internal and External Audits (including those by certification bodies)
* Contractors and Subcontractors must cooperate fully and promptly resolve any non-conformities identified. Perpetuum may request to review all safety and environmental authorizations and permits at any time, in accordance with local laws.

# CONSEQUENCES OF VIOLATIONS OF HEALTH, SAFETY, AND ENVIRONMENTAL REQUIREMENTS

Perpetuum reserves the right to impose sanctions for HSE violations by notifying the Contractor via registered letter or certified electronic communication (PEC).

If a violation results in an accident or a high-potential incident that could have caused serious or fatal injury, Perpetuum may apply a penalty based on the severity of the violation and the resulting harm.

In the case of environmental incidents, if the Contractor breaches legal or contractual obligations related to environmental protection, the Contractor shall indemnify and hold Perpetuum harmless for any losses or expenses incurred as a result.

1. This applies to companies that they employ more than 50 employees [↑](#footnote-ref-2)