INNOMOTICS

Innomotics Occupational Health and Safety Requirements for External Companies – Annex B to the EHS-Standard Deutschland „Fremdfirmen“

Version 1.0

This Annex B is attached to the contract between the customer and contractor and may be passed on to the External Companies as part of the contractual relationship.

Contents

1. Terms and Definitions

Begriffe	Definition
Lock out, protect against restart, tag out (LOTO: Lockout / Tagout)	A process or technical device to isolate and secure devices, switches, stopcocks or ball cocks, etc., which pose a risk of personal injury or property damage from the uncontrolled release of dangerous energy.
Flammable substances	Flammable substances, preparations, and products (flammable liquids, flammable gases / vapors / mists, and flammable dusts).
Confined spaces	Areas enclosed on all sides or mostly by fixed walls in which particular hazards that go well beyond the customary hazard potential in workplaces arise or can arise due to their spatial narrowness, insufficient air exchange, or the substances, mixtures, impurities, or devices present in or brought into them. Confined spaces are also areas that are only partially enclosed by fixed walls, but in which hazardous substances can accumulate or an oxygen deficiency can develop due to the local conditions or design.
Excavation / earthworks	Any process that necessitates ground opening such as digging, soil removal, excavation of holes / ditches / foundations, hollowing, tunnelling, deepening, drilling, unearthing, etc.
Hazardous energy	Any form of energy (e.g. mechanical, electrical, hydraulic, pneumatic, chemical, thermal, explosive, kinetic, potential, or other forms of energy) that has the potential to injure persons or damage property.
Hot work	Activity in which energy-inputting tools and equipment / materials are used (open flame, frictional energy, electric arc, etc.) and during which energy is released (thermal radiation, explosive release of material, etc.). Examples: soldering, grinding, welding
High risk	Work activity, processes, work areas and/or conditions during which the highest acceptable risk (limit risk) is exceeded and measures to reduce the risk may be necessary.
Industrial vehicles and machines	All motor-powered vehicles and machines used to transport, push, pull, lift or stack materials. Examples: forklifts, trucks, cranes, telescopic handlers, excavators, dump trucks, mobile lifting platforms, utility vehicles.
Contractor	External company that provides services for Innomotics GmbH on the basis of a contract with Innomotics GmbH and deploys personnel at Innomotics GmbH locations (e.g. production or project sites) or locations of Innomotics GmbH customers for this purpose. Within the meaning of this standard, the term contractor also include its sub-contractors.
Zero-energy condition	Condition defined by the fact that a device and/or system is not connected to an energy source or contains no residual energy or stored energy. While the system is isolated, no energy can enter or leave the system.

2. General requirements for high-risk activities

When performing high-risk activities, the required protective measures must be specified on the basis of the specific risk, such as:

- Work permit
- Defined, documented, and communicated work processes and procedures

- Specific training and qualification
- Assurance of fitness
- Specific contingency plans

All high-risk activities may only be performed and supervised by persons who are qualified to perform such activities.

3. Special requirements for high-risk activities

The following minimum requirements apply particularly to the following high-risk activities.

3.1 Working at heights

The following protective measures apply for working at heights:

- Safe access possibilities and a safe place for performing the work must be set up (e.g. working and protective scaffolds) and appropriate work equipment tools must be deployed (e.g. lifting platforms, mobile work scaffolds, etc.).
- Only suitable, approved and tested guardrails, catchment devices and personal protective equipment to prevent falls (PPE-PF), as well as rescue equipment, must be used on the basis of the hazard assessment. Employees must be instructed in these matters and all necessary theoretical and practical training must be provided. Theoretical and practical training on the handling and use of PPE-PF must be provided.
- Permits (e.g. scaffold permits) must be visibly mounted.
- Guardrails, catchment devices, PPE-PF and rescue equipment must be properly maintained and stored and tested by competent or knowledgeable persons.
- Test certificates (PPE-PF, safety nets, etc.,) and assembly instructions for mobile work scaffolds must be available.
- Anchor points must be planned and checked for each task and job site.
- A suitable height rescue plan must be available. All persons involved must be instructed in this matter. Rescue drills must be organized on a regular basis. Necessary rescue equipment and qualified personnel must available.

While working at heights, there is a risk of injury from falling objects. Appropriate measures (e.g. barricades, markings) must be taken to block access to the area beneath the work zone because persons are fundamentally not allowed to be in this area. If this cannot be avoided due to work that must be per-formed, appropriate protective measures must be taken before the commencement of work.

3.2 Working in confined spaces

When working in confined spaces, the following minimum safeguards must be implemented:

- Appropriate work processes and procedures must be defined to ensure safe access and the safe performance of work on the basis of the hazard assessment.
- Entry into confined spaces requires a written entry permit issued by a responsible person.
- As a general rule, before entering a confined space its atmosphere must be tested. If the presence of hazardous substances in hazardous concentrations or an oxygen deficiency

cannot be ruled out, a clearance measurement must be performed before and during the performance of work. The testing and clearance measurement must be performed by a qualified or knowledgeable person using an ap-propriate measuring device.
- Persons who enter a confined space or monitor it from outside of it (flagman), must appropriately qualified and designated. The confined space and the persons working in it must be monitored from outside by the flagman. In addition, all activities must be supervised by a supervisor designated by the contractor who is authorized to issue directives.
- Suitable rescue plans for working in confined spaces must be available and all persons involved in the rescue chain must be informed of these plans. Rescue drills must be held on a regular basis and possible emergency scenarios must be covered. Necessary rescue equipment must be available and appropriately qualified persons must be designated as rescuers.
- All equipment used for work and/or rescue must be properly maintained and regularly checked.

3.3 Hazardous energy

The following minimum safeguards must be implemented with respect to the servicing, maintenance, disassembly, etc., of devices and/or systems that contain hazardous energy:

- If hazardous energy is present, a zero-energy condition should be sought as a general rule and assured by means of approved procedures such as the LOTO procedures before the commencement of work.
- The zero-energy condition must be checked and verified before the commencement of work to ensure that the energy has been removed or held back.
- Only suitable equipment may be used for energy isolation. This equipment may only be used for isolation purposes and must be regularly checked, maintained and kept free of damage.

3.4 Electrical Safety

When working with or in close proximity to electrical systems and electrical tools, the requirements of DIN VDE 0105-100 must be considered and implemented.

3.5 Machine Safety

To ensure the safe operation of machines, the following minimum safeguards must be implemented:

- All machines and their safety devices must be operated and tested in accordance with the manufacturer’s instructions and always kept clean and in good condition. The safe operation of machines must be ensured throughout all lifecycles on the basis of the operating instructions, instruction manual and hazard assessment. Protection and safety devices of machines and emergency command devices may not be removed, deactivated, manipulated or disturbed at any time.
- In case of defective protection and safety devices and emergency command devices, the machine must be taken out of service and isolated until it is repaired. In performing repairs or maintenance, appropriate protection measures must be taken on the basis of the manufacturer’s instructions and the hazard assessment.

- As a general rule, hazardous areas of automatic machines may not be entered during operation. They must be adequately labelled and protected against unauthorized entry.
- Machines may only be operated and maintained by appropriately qualified persons.

3.6 Working with hazardous substances

When working with non-substitutable hazardous substances, the following minimum safeguards must be implemented:

- Before the purchase and use of hazardous materials, the safety data sheets must be evaluated by a knowledgeable person and appropriate measures must be taken to ensure safe handling.
- All containers of hazardous materials must be labelled.
- The hazardous substances register, and the safety data sheets must be made available to the relevant persons (e.g. company physician, occupational safety specialist, manager, employees).
- The quantity of a hazardous substances present at the job site must be kept as low as possible and only the required quantity1 of a hazardous substance may be kept on hand.
- Employees who handle hazardous substances must be made aware of the hazards and risks associated with the use of these substances. Employees must be instructed in the safety measures (e. g. the use of PPE) and emergency measures on the basis of the operating instructions and hazard assessment.

3.7 Flammable substances

The storage of ignitable and flammable or combustible substances outside of a storage cabinet, room or area intended for that purpose should be limited to the required quantity2 for the current work.

3.8 Lifting and transport processes

When lifting loads and using lifting gear, the following minimum safeguards must be implemented:

- Work beneath suspended loads or the movement of suspended loads over persons is prohibited. An exception can be allowed only if the work cannot be performed otherwise. The allowance of the exception required a documented hazard assessment to ensure alternative, equivalent safety measures. The exceptions must be formally approved by the responsible manager / project manager / construction supervisor before the commencement of work.
- Only approved and tested lifting gear and slings may be used. All lifting gear and slings must be clearly labelled (e.g. maximum load capacity).
- Tests of lifting gear, load-bearing equipment and slings must be performed by appropriately competent or knowledgeable persons.
- Defective, non-approved, untested, and unlabelled lifting gear and slings must be immediately re-moved from use to avoid unintended use.
- Only appropriately qualified persons may plan and execute lifting and lifting processes.

3.9 Cranes and lifting gear

Cranes and lifting gear may only be set up, operated, maintained, and disassembled in accordance with the manufacturer’s instructions.

If modifications are required, they may only be performed with the prior written consent of the manufacturer and by the manufacturer itself or by appropriately qualified persons who are authorized to do this. Every modification must be completely documented, and the modified equipment must be checked to verify its load-bearing capacity.

3.10 Excavation work

In the performance of excavation work, the following minimum safeguards must be implemented:

All underground lines (electricity, gas, water, etc.) in the area of building measures / excavation work must be identified and protected against damage / impairment.

Pits, ditches, and shafts must be equipped with safe entry and exit possibilities. From a depth of 1.25 m, measures must be taken to prevent excavation slumps (e.g. braces, scarps). Care must be taken to ensure that adjacent structures are not undercut or endangered.

Pits and shafts must be protected against unauthorized entry and falls and visually marked.

Suitable rescue plans for work in pits and shafts must be available and all persons involved in the rescue chain must be informed of these plans. Rescue drills must be held on a regular basis and possible emergency scenarios must be covered. Necessary rescue equipment must be available and appropriately qualified persons must be designated as rescuers.

3.11 Hot work

The performance of hot work is subject to the following minimum requirements:

- Appropriate work processes and procedures and the corresponding fire protection measures must be specified for hot work.

For hot work to be performed in areas that are not explicitly intended or designated for this purpose (e.g. welding booths), a written work permit (release note) must be obtained by the fire protection officer before the commencement of work.

3.12 Working with industrial vehicles and machines

When operating industrial vehicles and machines, the following minimum safeguards must be implemented:

- Industrial vehicles and machines may only be operated by appropriately qualified persons who are authorized to do so.
- Industrial vehicles and machines must be equipped with optical and/or acoustical alarms (e.g. backup warning signals, blue LED warning lights, signal lights, etc.). All safety devices (lights,

safety belts, horn, alarm, cameras, etc.) must be kept in operational condition at all times. Seatbelts must be worn (documented exceptions can apply).

- Industrial vehicles and machines must be operated and maintained in accordance with the manufacturer’s instructions. Defective vehicles and machines must be taken out of service until they are repaired.
- Industrial vehicles and machines must be protected against unauthorized use.