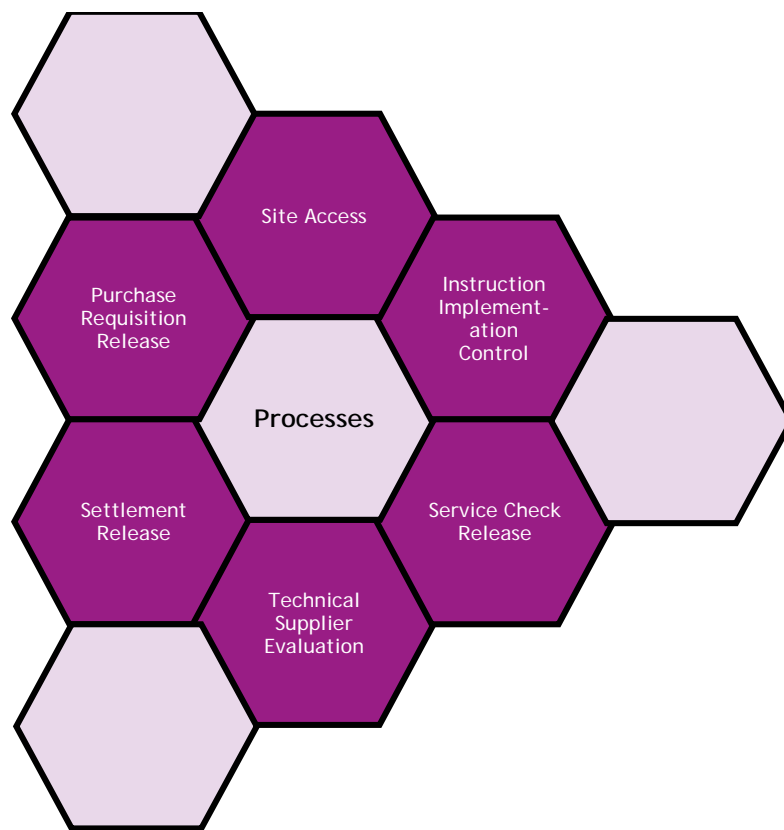


Guidelines for Contractors



Translated version of the signed Guidelines for Contractors written in German

| Issued: | Reviewed/Approved |
|---------------------------------|--------------------------------------|
| SET - Regulations Working Group | Evonik Contractor Management Officer |
| Date/Signature | Date/Signature |

Guidelines for Contractors

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1 Principles

1.1 Scope

The regulations of this guideline apply to contractors and their personnel that provide work / services at the sites of Evonik and its subsidiaries.

It is the binding construction site regulation at Evonik's sites in Germany and Belgium.

1.2 Scope of services and acceptance of services

The scope and acceptance of services are regulated in a binding manner in the purchase order or the supporting documents. If services not included in the agreement are required, the contractor must clarify them with the customer before starting work.

The contractor must report deliveries and services to be accepted to the customer completely or in stages before the completion of the contractually agreed services.

The customer must document defects identified during acceptance of the services in writing. The contractor must remedy defects for which a complaint has been registered within an appropriate timeframe and report completion to the customer.

1.3 Requirements for the contractor

1.3.1 Occupational safety

This guideline contains the general requirements for the contractor's conduct as regards working with associated hazards for persons and property. The customer always defines order-specific requirements for occupational safety in writing (e.g. in individual orders, work request).

The relevant occupational safety regulations, workplace guidelines and occupational health rules, including the safety regulations applicable to the order, must be complied with.

The contractor has full responsibility and liability for the safety of its employees.

The contractor must ensure that its work does not cause hazards for the employees of the customer or of other contractors.

When devices, work equipment and other equipment are used, all the statutory regulations, the regulations of the employer's accident insurance fund and special operational rules must be complied with. The contractor is fully responsible for the safe operation of all equipment it uses.

For the joint development of occupational safety and health, data from occupational accidents involving contractors' employees at the site is recorded and evaluated..

1.3.2 Environmental protection and energy management

The contractor must comply with the relevant laws, ordinances, orders and regulations and site-internal regulations.

Order-specific requirements for the contractor's conduct as regards working with associated hazards for persons, property and the environment are defined in writing by the customer.

Contractors are urged to be economical with energies and resources and to use energy-efficient technologies and methods.

1.3.3 Preventive fire safety

The contractor is responsible for compliance with fire safety-relevant laws and regulations and for compliance with the applicable fire safety regulation at the site.

The responsible fire service is to be involved in all matters relating to preventive fire safety and preventive hazard prevention.

1.3.4 Subcontractors

If subcontractors are to be employed, this must be requested in writing from the customer and the customer must give its specific consent.

The customer may reject subcontractors proposed by the contractor.

The contractor's choice and assessment of subcontractors must meet the criteria of the agreement concluded with the customer.

The services provided by subcontractors, including the necessary instruction of its personnel are treated in exactly the same way as the services provided directly by the contractor. All complaints are directed to the contractor.

The customer may carry out checks in connection with the employment of subcontractors and in justified cases (e.g. a breach of the safety regulations) may reject them.

1.3.5 Service provider personnel of the contractor

Contractors that employ personnel on the basis of the German Temporary Employment Law are fully responsible for the occupational safety of the employees during their work. The contractor must treat persons employed within the scope of the temporary employment like its own personnel.

1.3.6 Language requirements

The contractor's employees must understand the information and instructions in the local language of the site adequately well, especially in case of alarms and hazardous situations. If the company cannot deploy employees with an adequate understanding of the local language (for information and instructions in alarm and hazardous situations), the company must provide competent contact persons continuously at all locations where the contractor's employees are working.

Managers of all nationalities must have sufficient command of the German language in speech and writing and be sufficiently familiar with the applicable German occupational safety laws and accident prevention regulations.

1.3.7 Maintaining operational order

The following are principally not permitted at the site:

- Hanging posters, writing on walls or affixing advertising to vehicles,
- Distributing flyers, leaflets or printed matter,
- Collecting signatures,
- Selling or advertising goods or holding meetings.

Excluded from this ban are especially approved activities from existing institutions and the distribution of printed matter from trades unions. Permitted activities by the employee representatives and the trade unions are not affected.

All party-political activities at the site that could disrupt or endanger peace or order are prohibited. Employees may also not carry out activities for non-political organizations if this could disrupt or endanger peace or order.

1.3.8 Rectifying defects

Identified defects must be rectified without delay. Conduct that breaches safety or regulations is prohibited. The customer must be informed without delay about safety defects that the contractor notices. If necessary, work should be stopped.

1.3.9 Liability and insurance

The contractor must take out adequate liability insurance and prove this without being asked to do so. If the insurance cover is insufficient, the customer may terminate the order or the agreement without notice.

With its bid, the contractor must be prepared to state whether and to what extent the service that is offered is covered by an installation insurance policy.

When the contract is awarded, the customer may specify the insurance amount or take out installation insurance itself at its own cost, co-insuring the interests of the contractor. Construction site facilities including installation equipment and tools provided by the contractor are not insured. This does not affect the contractor's liability.

The contractor works on its own responsibility within the scope of the applicable laws, regulations and other legal provisions; in other words, the contractor and its employees are fully responsible for the legal consequences (fines, penalties, imprisonment) that could result from misconduct. The customer retains the right to take further steps, such as claiming compensation, bans from the site.

1.3.10 Confidentiality

The contractor and its employees may not provide third parties with any information about operational facilities, business transactions or workflows / methods.

This confidentiality obligation remains even when the work is finished.

All documents provided to the contractor (e.g. plans, documents, design drawings, programs, data, or models) and all results of work achieved within the scope of fulfilling the order are the property of the customer. They must be kept safe from unauthorized access by third parties and be returned when the work is completed.

The contractor is not authorized to obtain details about operational facilities, business transactions, workflows or methods without the cooperation of the customer.

1.4 Access procedure

The access procedure includes 3 instruction levels.

In the 1st instruction level (access to the site), the contractor's employees are handed the general safety regulations at the site gate and may be tested in regard to their German language skills. Depending on the rules at the site, a safety film may be shown and the employees' knowledge of safety regulations at the site may be checked in a short test.

To aid training the following are generally provided:

- Brochures
- Short information
- Safety film, if necessary.

In the 2nd instruction level (access to the plant/construction site), the contractor's manager is instructed in the general safety requirements of the plant or the construction site. The contractor's employees are to be instructed by the contractor's manager.

The 3rd instruction level (carrying out the work/access to the workplace, including hazard assessment) about the special workplace-related safety measures for the contractor's employees is carried out by the plant at the workplace, usually based on work orders and/or work permits.

1.5 Breach of contractual regulations

1.5.1 Breach of guideline for contractors

In case of breaches of this guideline, at the request of the customer's construction or installation management, the contractor's employees who breach the construction site regulations or whose

conduct otherwise affects occupational safety must be replaced by suitable personnel. In addition, the following measures are taken:

- Issuance of complaints, terminating agreements if necessary
- Meeting with the company's management
- Expense-related cost reimbursement for processing investigation procedures

1.5.2 Breach of ESH agreements

In case of breaches, the customer will take the following graduated measures:

- Written documentation of breaches (complaint)
- Instruction to suspend work until the defects are rectified
- Expulsion of the persons concerned from the plant or the construction site
- Expulsion of the persons concerned from the site

The contractor is responsible for any expenses that this incurs.

In addition, a breach of safety regulations may lead to immediate termination of the work agreement and the contractor being banned from the site.

If the contractor is unable to rectify safety or environmental defects within a reasonable time, the customer may have this carried out by a third party at the contractor's cost.

1.5.3 Breach of quality requirements

In case of breaches of quality requirements - depending on the degree of the quality deviation - the customer will decide whether the defective, non-compliant service

- can be used with a reduction in price,
- must be improved,
- or is to be rejected.

In accordance with contractual and statutory regulations, the contractor is given a specified time to make improvements at its own expense. This does not affect the customer's right to claim compensation.

1.5.4 Breach against order and cleanliness

In cases of breaches against order and cleanliness the customer may take the following graduated measures:

- Pointing out the breach in person or by phone, stating that the defect must be rectified
- Written documentation of breaches with a time specified to correct the situation (complaint)
- Putting together a cleaning team with personnel from the contractors working on the construction site at the contractors' expense.
- Deploying a cleaning team at the contractors' expense if they have not corrected the situation by the defined date.

1.6 Assessing quality performance

The customer's assessment of the contractor's quality performance is important for awarding future contracts.

The contractor's quality performance is assessed on the basis of evaluations of the complaints about services from all areas of the customer's company that are directly or indirectly involved in order processing. The customer may also carry out additional regular technical quality evaluations based on inspections, tests, etc.

1.7 Amount allocation

The contractor can be billed for the costs incurred by the contractor, e.g. for site security, first aid and occupational safety. This rule also applies to subcontractors employed by the contractor and to additional expenses caused by incorrect invoices. The allocation rates are defined specifically for each site.

2 Tasks and Areas of Responsibility

2.1 Customer's responsibility

2.1.1 Customer's contractor coordinator/local supervisor

The customer's contractor coordinator is the person authorized to place orders with the contractor. His/her contacts are the representatives named by the contractor.

The contractor coordinators / local supervisors have instruction, coordination and monitoring duties and the corresponding safety-related instruction authorization when contractors are employed.

2.1.2 ESH experts

ESH experts are:

- Expert for occupational safety
- Responsible expert for fire safety
- Company medical service
- Customer's environmental protection officer

They advise and support the contractor's construction site management in preparing and implementing suitable safety and environmental protection measures.

These ESH experts do not replace the contractor's obligation to appoint safety experts and company physicians and - if required - safety and fire safety experts.

The contractor's ESH experts must collaborate with the customer's ESH experts.

2.1.3 Customer's construction site and installation managers

On the construction site the construction site manager is responsible for on-site handling of a project during the entire construction time. His or her duties are based on statutory regulations and also on the internal delegation of responsibilities by the customer.

The construction site manager has specific instruction, coordination, and monitoring duties with regard to the employment of contractors within the scope of the project to ensure that statutory and safety regulations and recommendations are complied with. He/she has the following duties:

- Drafting the project-related safety instructions or the H+S plan,
- Defining the construction site organization,
- Appointing the order and safety coordinators for the respective sub-projects (trades),
- Coordination between the specialist departments, plants and contractors,
- Ensuring that all safety regulations are complied with,
- Final acceptance and issuance of an acceptance log,
- Handing over the plant to plant management, and
- Investigating damage events.

If the construction site manager does not have the required professional qualification (e.g. for construction work, heavy rigging, pipeline installation or instrumentation, handling radiating isotopes) for the respective trade in a project, the construction site manager must appoint specialist installation managers for the trades to complement their own professional skills and experience.

The tasks or areas of responsibility of the contractor are not affected by the customer's construction site management.

The customer's construction site management may direct the contractor's representative with regard to safety-related issues; in other words, the construction site manager and the specialist construction managers are authorized to place orders from the customer.

2.1.4 Safety instructions

The customer provides the safety instructions for the contractor's construction site management as regards general, operational and project-related measures and codes of conduct.

The instructions must be documented in a suitable format (e.g. the "Safety instructions for contractors' employees" form) and be acknowledged with a signature.

2.1.5 Order or project-related safety instructions

The customer must define order-related safety instructions along with the necessary measures based on the requirements for safety, health protection and environmental protection (ESH).

In the case of larger measures according to the German Construction Site Ordinance (e.g. projects), the customer must draft a health and safety plan (H+S plan). The H+S plan must be complete before the construction or installation work begins so that safety-relevant issues can be considered when the contract is being awarded.

In addition to the measures for hazard prevention that are defined in a risk analysis, the following must also be defined:

- Construction site facilities (e.g. in the construction site facility plan with details of the cabin locations, construction site electricity distribution, traffic routes, storage and assembly locations)
- Regulation for instructions for all employees at the construction site
- Regulation for daily workforce report
- What to do in case of an alarm and information about the assembly point
- First aid organization
- Permit regulation
- Appointment of safety coordinators
- General information about existing regulations, guidelines, order, and cleanliness

2.2 Contractor's responsibility

2.2.1 Construction site manager (of contractor)

To monitor that the work is implemented as in the agreement, the contractor must appoint a responsible manager (= construction site manager) on site.

The construction site manager or a deputy must ensure that the work is carried out safely, smoothly and on time.

The construction site manager is responsible for personnel, has rights of direction and is responsible for deploying the personnel. The contractor must make sure that there are sufficient, qualified management personnel available.

The contractor's construction site manager or a deputy must be available as a contact for the entire implementation time.

If experts are required for certain services, the contractor must provide them and name them in writing.

The experts/managers provided by the contractor may be called off the job only with the consent of the customer.

The construction site manager or the safety officers must take part in the occupational safety meetings and the construction site inspections arranged by the customer.

2.2.2 Safety expert and company physician

According to the German Occupational Safety Law (ASiG), the contractor must name the responsible company physician and the responsible expert for occupational safety in writing.

In accordance with the German Occupational Safety Law, the contractor must ensure the proportional assignment of a safety expert on the construction site.

Before work starts on special activities (e.g. working with breathing apparatus), the contractor must arrange for the required medical checkups and prove that its employees are fit for the work.

2.2.3 Safety officers

On the construction site, the contractor must appoint safety officers in accordance with the German Occupational Safety Law (AsiG). The contractor's safety officers must be made known to the local safety expert.

2.2.4 Contractor's visitors

For contractor's visitors, the general safety regulations and also the special provisions on the construction site apply. Visitors must be registered in writing with the customer's representative. The representative obtains the required permit. In this case, the contractor is responsible for the instructions regarding safety regulations.

Visitors to the contractor may enter the respective site for professional reasons only. Visits of sales representatives, such as for tools and machines, must be carried out at the contractor's premises, unless there is a particular requirement at the customer's site.

2.2.5 Qualification of the employees

The contractor must ensure the personal suitability of the employees to carry out the specific work.

The contractor must submit copies of current qualification certificates (e.g. welder test certificates, fire pickets) without being asked to do so.

2.2.6 Occupational health checkups

Only people who have been examined and deemed suitable according to the "Occupational insurance association's principles for occupational health checkups" may be employed for various activities and for handling various hazardous substances. The contractor must arrange the examinations at its expense before the employees start work and must maintain the employee's health chart. This must be presented on request.

Apart from this, the contractor must pay attention to the physical condition and state of health of its employees at the site; in other words, if the employee has health problems, his or her suitability must be analyzed and documented as regards the specific workplace (for example, employees with known illnesses, such as circulatory insufficiency or dizzy spells may not be employed in chemical plants because this makes it difficult to establish the cause in case of accidents). Within the scope of a health risk analysis, every contractor must check that the employees on the job have passed the legally prescribed medical checkup and that they fulfill the health requirements for the planned work.

2.2.7 Providing personal protective equipment

The contractor must provide personal protective equipment for its employees. It must ensure that the protective equipment is always in a proper, tested condition and that the employees use it properly.

The required personal protective equipment is defined specifically for every contractor at the site and for working in the plant by means of the permits. The customer specifies the work-related protective equipment (e.g. welder's visor).

In special, contractually agreed cases, the customer provides plant-related special protective equipment, such as respiratory protection masks and protective overalls.

2.2.8 Knowing the safety regulations

The contractor's employees must know and observe the safety regulations and occupational safety contract conditions related to their work.

The contractor's construction site management is responsible for ensuring that the contractor's employees and subcontractors, if applicable, are familiar with the contractually defined safety regulations. It must train the employees regularly - if they work at the site for longer periods, at least once per year. New employees on the construction site must be instructed before they start work.

It must be ensured that the personnel understand the content of the instructions.

Proof must be kept of the content of the instructions and of the persons who took part. On request, the logs must be provided to the customer.

The contractor's representative must keep all relevant accident prevention regulations from the employer's accident insurance fund, this guideline and other safety guidelines provided by the customers as well as installation instructions in his or her office where they can be viewed.

When the contractor's employees receive advance instruction based on the training material, for example within the scope of major repairs and revisions, the instructions must be acknowledged in writing.

2.2.9 Safety of the facilities

The contractor's construction site manager is responsible for safe use of the equipment, safe use of traffic routes within the site, scaffolding and protective facilities. Proof of tests must be kept on the construction site and/or must be affixed to the equipment durably and visibly.

2.2.10 Handling materials that are provided

When the contractor accepts and uses materials, it acknowledges that they are in perfect condition.

Materials provided by the customer do not release the contractor from its warranty.

If the contractor has any concerns about the materials and components that the customer intends for use or about the services from other companies, it must inform the customer of these concerns in writing without delay.

2.2.11 Identifying risks

Before the contractor starts work, according to the German Occupational Health and Safety Law, the Ordinance on Industrial Safety and Health, the Ordinance on Hazardous Materials and other supporting laws and regulations, it must carry out and document an order, project and/or work-related risk analysis that also includes determining necessary measures for the safe provision and use of equipment. In particular, the analysis must consider the risks involved in using the equipment itself, the interactions between the different equipment used at the workplace and the risks created by using the equipment with specific materials or in the specific working environment. The risk analysis must be provided to the customer before work begins. If there are any changes in the order processing which could result in changes in the risks that were determined, the contractor must update the risk analysis in a timely manner.

2.3 Order execution

2.3.1 Presence at the site

The contractor's employees may only be present at those locations of the site where they are working or where they are carrying out a specific order. Excluded from this are general facilities that are freely accessible, such as the cafeteria.

The employees may only spend time at the site for activities associated with their work (work, breaks, washing, changing clothes). Employees are not allowed to stay overnight at the site (incl. parking areas).

Employees may not start work in the plant on the construction site or on the grounds of the respective plant without the permission of the plant or construction site management or the contractor coordinator.

2.3.2 Agreements to carry out the work

Before the work is started, the contractor's construction site management and the customer make agreements about how the work is to be carried out. The contractor is informed about the material, time-related and local conditions needed for the work.

The contractor carries out the work on its own responsibility properly and on time. The contractor may not modify or remove plant facilities or put them into or out of operation without the consent of the customer.

The contractor ensures that only suitable staff carry out the delegated work. It is the contractor's duty to instruct and supervise the employees that are employed.

2.3.3 Entering the construction site by foot or vehicle

The construction site may be entered by foot or vehicle only to fulfill contractual services. Employees may not spend time on site outside of their working time. Employees may not enter plant facilities outside their workplace.

2.3.4 Working time

The contractor is responsible for compliance with the German Law on Working Hours.

Generally, the contractor should carry out its work on the construction site during the customer's day shift.

Overtime and work on Saturdays, Sundays, and public holidays must be coordinated with the customer and require its consent. For work on Sundays and on public holidays that requires official approval, the contractor must apply to the responsible authority and inform the customer's construction site management about this.

Acceptance of working hours

2.3.5 Acceptance of activities on an hourly basis

When the contractor has completed the time/work sheet, this must be submitted to the customer (contractor coordinator or requester) for acknowledgment. This should be done on the day the work is carried out, but within 5 days at the latest. In exceptional cases (e.g. work that takes several days), the time/work sheet must be submitted at the latest after one week.

2.3.6 Information about personnel assignment

On construction sites with an independent construction site organization, the contractor's construction site management must document information about personnel assignment in writing before work is started. This list must be updated regularly and be submitted to the customer at agreed intervals on the contractor's own accord.

Separate lists must be kept for employees of subcontractors.

2.3.7 Observing the safety regulations

The safety regulations of the site, plant or construction site must be observed and the contractor's construction site management must ensure that they are complied with.

2.3.8 Issuing work permits

The customer's plant/installation management take the required workplace-related safety measures before the employees start work. This must be acknowledged in the permits. The work is released when the permit is handed over by the plant or installation management and *signed by the person on the contractor's side who is authorized to accept orders (3rd instruction level)*.

2.3.9 Obtaining permits

The contractor's construction site management is responsible for obtaining permits before work is started in the plant or on the construction site. The instructions on the permits or work orders must be strictly adhered to.

2.3.10 Obligation to check in and out of the plants

For safety reasons, employees must check in and out.

Each day, before starting work and when they leave the plant - even for breaks - and at the end of the work, the contractor's employees must report of their own accord to the reporting point of the plant/workshop (e.g. control room) and personally sign in and out of the attendance list for external personnel, if available.

Deviations to this rule must be defined in the plant-specific or project-related safety instructions. This applies especially to plants / buildings with a low risk potential as regards occupational safety and environmental protection, such as offices, laboratories, and pilot plants.

2.3.11 Inspections of the contractor

The customer's representatives may inspect internal areas of the contractor's business to verify compliance with this guideline, among other things. The contractor's construction site manager must take part in this inspection.

2.4 Safety coordinators

The basic obligations for the coordination of work where employees from several employers are employed or for work where very particular hazards can be assumed are described in the legal regulations below.

- Coordinator according to the German Occupational Health and Safety Law or DGUV Regulation 1 and according to Section 3 German Construction Site Ordinance
- Specialist coordinator according to the German Ordinance on Hazardous Materials
- Coordinator according to DGUV Rule 101-004 (Working in contaminated areas)

The coordinators are appointed by the customer; for work in operating plants by the respective operator. The coordinators must be suitable and have specialist and operational knowledge and experience to fulfill their duties.

Coordinators are appointed in writing based on the specific order with details of the building and phone number (e.g. on the permit or project-related safety instructions). The contractor must be given the names of the coordinators.

2.4.1 Duty of coordination

Before work starts there is a duty of safety-related coordination between the customer and other contractors in the plant or on the construction site to prevent mutual hazards with:

- Different groups of companies
- Employees on existing operational facilities of the customer

- Work groups

Agreements between two and more contractors that could affect the work sequence must be discussed with the customer.

This duty applies regardless of the appointment of coordinators.

2.4.2 Coordinator according to the German Occupational Health and Safety Law (ArbSchutzG) or DGUV Regulation 1

A construction site coordinator according to DGUV Regulation 1 must be appointed if

- Employees of the customer (e.g. operating personnel, workshop personnel) and employees of the contractor or
- Employees of several contractors

could put each other at risk while work is being carried out because they are working simultaneously beside or above and below each other, for example.

The task of the coordinator is to prevent mutual hazards by coordinating the work procedures as regards time and spatial aspects so that all measures required to prevent mutual risks are ensured at all times.

2.4.3 Coordinator according to Section 3 German Construction Site Ordinance (Health and safety coordinator)

For all measures, the appointment of a coordinator according to Section 3 German Construction Site Ordinance is required if employees from different companies could put each other at risk while they are working.

In addition to the duties of the coordinator according to DGUV Regulation 1 (see Sect. 2.4.2) tasks must be carried out during the planning phase of the construction project (e.g. develop a health and safety plan).

2.4.4 Specialist coordinator according to the German Ordinance on Hazardous Materials

Appointment of a coordinator for working with hazardous materials is required if, within the scope of a contractor assignment, there is a potential of employees putting each other at risk.

The coordinator for work with hazardous materials must be appointed in writing and his or her name must be made known to all employees.

The task of the coordinator is to prevent dangers from hazardous materials by coordinating the work procedures as regards time and spatial aspects so that all measures required to prevent hazards are ensured at all times.

2.4.5 Coordinator for work in contaminated areas according to DGUV Rule 101-004

Appointment of a coordinator for work in contaminated areas according to DGUV Rule 101-004 is required if work in contaminated areas is to be carried out by several contractors or by their subcontractors.

The task of the specialist coordinator is to prevent dangers from hazardous materials in contaminated areas by coordinating the work procedures as regards time and spatial aspects so that all measures required to prevent hazards are ensured at all times.

2.4.6 Right of direction of the coordinators

All employees at the construction site/workplace, in other words, also the contractor and its employees and managers are subject to the right of direction of the safety coordinators with regard to safety-related issues.

The coordinators can order work to be stopped at a workplace because of safety breaches.

2.4.7 *Customer's instructions*

The contractor's employees must immediately follow the customer's instructions if there is a danger to life and limb, the environment, or for material or property assets.

The contractor's employees must also follow instructions from site security (e.g. for vehicle and identity checks).

2.4.8 *Contractor's responsibility*

In terms of contractual services, management duties, and safety, the responsibility of the contractor and its construction site management remains in full force regardless of the work of a coordinator.

3 Construction Site Facilities

3.1 *Use of infrastructure*

3.1.1 *Infrastructure facilities*

Infrastructure facilities that the customer can provide to contractors at the site to help them deliver their work/service include:

- Areas (for storage or interim storage of substances, machines and equipment, erection of office, break and workshop rooms)
- Supply and disposal lines, waste disposal (e.g. electrical energy, steam, water, wastewater)
- Halls (e.g. assembly halls to prefabricate parts)
- Social facilities (bathrooms, cafeterias)
- Services from the company medical service and the first aid station.

The customer always provides contractors with areas within the fenced site. The customer may stop the contractor using certain areas by giving contractually agreed notice of its intent.

If not agreed otherwise, the contractor is responsible for maintenance of the areas and facilities it is provided with.

If the contractor wants to erect buildings on the areas, it must submit a building application to the responsible building authority through the customer.

Co-use of the customer's facilities is not allowed without permission.

The contractor will be billed the costs for using infrastructure facilities on a time and material basis in accordance with the site-specific arrangements. This regulation applies also to subcontractors employed by the contractor.

3.1.2 *Rental agreements*

In the case of rental agreements to be concluded by the contractor to use areas, the permitted use must be described, the rent must be defined and liability must be regulated. Site-specific regulations must be observed.

3.1.3 *Using the roads*

If no special agreements are made, site security is responsible for monitoring traffic safety and the associated rights as regards the site roads and all common areas and buildings.

The contractor may obstruct traffic, e.g. by erecting road barriers, only by prior agreement with the customer. These measures must be defined and signposted according to the guidelines of the German Traffic Regulations.

3.2 *Scope of construction site facilities*

3.2.1 *Location of construction site facilities*

Only the areas that the customer specifically provides may be used. Otherwise, contractors can be ordered to immediately clear areas that they have occupied on their own accord.

A construction site facility plan must be submitted to the customer for approval in good time before work commences, showing the locations of construction cabins, accommodation, sanitary, production, and storage facilities.

3.2.2 *Facilities for construction sites*

All facilities (tools, equipment, scaffold, installation devices, cabins, employee accommodation, storerooms, material storage areas, vehicles etc.) must comply with the scope of services to be provided and with the regulations.

Construction site cabins, assembly halls, and storage halls must, already upon delivery, display a permanent company logo that is characteristic for the contractor.

The contractor must take suitable measures to prevent damage, such as from theft and fire.

Access roads that are needed in addition to the planned and existing site roads may be constructed at the contractor's expense by mutual agreement between the customer and the contractor.

The contractor must remove all infrastructure measures that are created for the construction site facilities when it vacates the construction site.

3.2.3 *Fire safety facilities*

On the instructions of the responsible fire service the contractor must ensure preventive fire safety. The contractor is responsible for checks of and ensuring the perfect condition of the facilities.

In particular, the required number of fire extinguishers and first aid equipment must be accessible and ready for use. Employees must be familiar with or trained in the handling of fire extinguishing equipment.

Fire service facilities, such as hydrants, fire extinguishers, standpipes, wall hydrants and information signs, may not be blocked, covered, damaged or otherwise made unusable and must be accessible at all times. Any damage to these facilities must be reported to the customer without delay.

3.2.4 *Communication facilities*

The contractor can apply for connections for telecommunication systems at its own cost to the customer. The contractor will be responsible for all costs that this incurs.

3.2.5 *Personnel accommodation*

Accommodation for the contractor's employees must comply with statutory regulations. Employees are not allowed to sleep overnight at the site or in the associated parking areas.

3.2.6 *Sanitary facilities*

The contractor must provide and maintain sanitary facilities, washrooms and bathrooms for its employees on construction sites according to the statutory regulations.

Within the site, at the locations defined by the customer, there are disposal connections available for the installation of washroom and bathroom cabins.

The customer will connect all the contractor's wastewater connections to the sewage system at the contractor's expense. Washing water, wastewater and fecal matter are not to be drained to the soil.

Use of the customer's sanitary facilities by the contractor must be regulated contractually on a case-by-case basis.

3.2.7 Workshops

Workshops for the contractor's employees must comply with statutory regulations.

Use of the customer's workshops by the contractor must be regulated contractually on a case-by-case basis.

3.2.8 Storage of fuels, consumables and materials

The contractor is responsible for the storage of consumables, equipment and material and for protecting them against the weather. The statutory regulations must be complied with.

The customer may dismantle the contractor's storage areas that are not approved at the contractor's expense.

3.3 Supplying work areas

3.3.1 Provision of energy

Where available, energies will be provided by the customer only where they are needed to carry out the work. Provision will be regulated in individual agreements.

No guarantee is accepted for uninterrupted provision of energy (electricity, water, steam, and compressed air). The customer may limit the use of energy in terms of time or quantity to prevent malfunctions.

The customer may check the contractor's connected facilities and energy consumers and, if there is any damage to this equipment or if energy is being misused, may suspend supply.

3.3.2 Transfer points for energies and media

The contractor's area of responsibility as regards correct creation and maintenance begins at the transfer point. The contractor is liable for damage that arises from its systems from the main energy distribution point or through their use.

3.3.3 Connections to construction site distribution equipment

Connections to the energy supply facilities require the customer's prior agreement. The contractor may not make changes or repairs to facilities installed by the customer. Work that is needed because of an action by the contractor will be carried out at its expense.

All connections and pipelines from the main energy distribution point to the contractor's facilities are to be constructed by the contractor at its own cost. The necessary connection points and routes for pipelines must be approved.

3.3.4 Consumption meter

Consumption meters may be installed at specific sites at the contractor's cost. This requires an agreement with the customer.

3.3.5 Electricity feed-in points

Feed-in points are interfaces between the supply grid and the electrical system on the construction site. The contractor must ensure that statutory regulations are complied with.

Particular attention is drawn to the use of approved feed-in points to supply electrical systems or equipment, such as:

- Construction site electricity distribution box according to DIN VDE,
- Branches of stationary electrical systems,
- Generator according to DIN VDE, and

- Transformers with separate windings (isolating transformers).

The contractor may use plant power outlets for individual equipment (e.g. welding machines, pumps, cable drums) only after they have been tested and released by the customer or the plant.

3.3.6 Ground connections at the transfer point

The customer provides ground connections with sufficiently low resistance at the transfer point. The contractor may create ground connections within the construction site only in agreement with the customer.

3.3.7 Connecting a construction site electricity distribution box

The contractor must install construction site electricity distribution boxes according to DIN VDE and check them every working day. The tests must be documented.

All connections for electricity must be carried out by professional electricians according to DIN regulations

3.3.8 Transformers

The contractor must provide any transformers needed for voltage adjustment. The transformers (no autotransformers) must be designed with secondary, fully loadable star point, suitable for 100% asymmetric loads.

3.3.9 Electrical systems

The contractor's electrical systems from the transfer point must comply with and be operated according to VDE regulations and the additional requirements of the regulation of the Employer's Liability Insurance Association (BGV) "Electrical systems and equipment" (DGUV Regulation 3). As a protective measure against too high contact voltage, a residual current operated device according to DIN/VDE 0100 is required.

3.3.10 Workplace lighting

The contractor must ensure adequate workplace lighting according to the regulations with work-lights (e.g. with protective basket and plastic base).

Portable lamps must be isolated or be operated via safety transformers or with low voltage. The relevant rules from the Employer's Liability Insurance Association must be observed.

3.3.11 Potentially explosive areas

Since potentially explosive areas fall under plants that must be monitored, they are subject to the German Ordinance on Industrial Safety and Health. The customer may carry out electrical installation work partially or completely in potentially explosive areas. The customer must approve work with ignition hazards before work starts

3.4 Checks by the customer

The customer may check the conditions of the construction site facility unannounced at any time. The contractor must rectify identified defects without delay.

4 Site Security

4.1 Registration when accessing the site

4.1.1 Contractor's registration

The contractor is registered by the customer's representative as soon as possible after the contract has been awarded. In case of spontaneous contractor assignments, the registration is done by phone. The written registration of the contractor on the customer's form must be submitted afterwards.

Before work commences, site security must have a registration for every individual contractor and subcontractor.

4.1.2 Personal information

The contractor's employees must provide personal information and information about their work at the site before they enter the site for the first time. The applicable form is to be used for this.

4.1.3 Handing out general safety guidelines

The information about the general guidelines and safety regulations at the site for access to the site is the 1st instruction level and is ensured by site security or the employees at the gate.

The German-language information and training material is handed out to the contractor's employees.

The contractor must ensure that its employees are instructed about the general guidelines and safety regulations at the site before they enter the site for the first time.

4.1.4 Entering the site

Entry to the site is permitted only with a valid contractor or visitor ID.

4.1.5 Labeling equipment

The contractor's property must be permanently labeled. Objects that cannot be clearly allocated are deemed to be the property of the customer.

4.1.6 Vehicle permit for the site

A vehicle permit for the site is issued only on the basis of a justified request and with the agreement of the customer.

A permit can be issued only for the transportation of material and tools, for workshop trolleys, for vehicles with combined passenger transportation and for persons who change their workplace several times each day.

4.2 Company ID cards

4.2.1 Issue, return and loss of the company ID card

A company ID card is issued only if the contractor registers beforehand. To check the information, the contractor's employees must present original documents:

- Identity card or passport (for German employees),
- Passport and work permit if necessary (for employees from EU countries), and
- Passport and residence permit (for employees from non-EU countries)

Every person who is entitled to enter the site, receives a personal ID card that is issued for the time the employee is permitted to enter the site. The ID card may not be given to another person to be misused. The ID card should be kept in a safe place to prevent misuse by third parties.

Visitors and contractor's employees may enter the site only with a valid ID card. Company ID cards must always be carried and be presented when employees enter and leave the site without them being asked to do so.

The company ID card is not transferable. If it is misused, the ID card will be withdrawn and the employee will be banned from the site. The customer reserves the right to take further measures and make further claims.

The contractor is responsible for returning the company ID card to site security or an officer at the gate when the work is interrupted or finished. The card must be returned on the last working day.

The customer will charge a defined amount for every day that the ID card is not returned when the work is finished despite the customer asking for its return in writing.

The loss of a company ID card must be reported immediately. A defined amount will be charged for lost ID cards.

4.2.2 Checking knowledge of safety

The contractor must ensure that its employees are instructed about the general guidelines and safety regulations at the site before they enter the site for the first time. Training material is available for the contractor's employees to train themselves. The following are used as aids:

- Brief safety information
- Site safety instructions, e.g. film on CD-ROM

The information and training material is available in German only. The brief safety information is handed over to the contractor's employees.

Site security check the level of safety knowledge when they issue the ID card on the basis of the "Safety test" (1st instruction level).

Generally, repeat tests are carried out 12 months after the employees first enter the site. The customer sends a request to the contractor for this.

4.2.3 Advance instructions by the contractor

When the contractor's employees receive advance instruction based on the brief "Site access" information, for example within the scope of major repairs and revisions, the instructions must be acknowledged in writing by the contractor. The contractor's level of knowledge as regards the safety regulations at the site are checked randomly.

4.3 Checks

4.3.1 Checking employees

Site security sporadically checks the contractor's employees on the construction site. If the person who is checked does not have their social insurance certificate with them, they must present it to site security in person on the following day.

4.3.2 Checks on entering and leaving the site

To protect company and personal property and to comply with site rules (e.g. ban on alcohol, drugs, photography and filming) checks are carried out at the site.

The checks are always random or, in case of justified suspicions, in the form of checks of containers, persons or vehicles. During a check, containers must be opened for site security.

Contractors' vehicles entering the site with radioactive materials must be reported to the site radiation protection officer through site security.

4.3.3 *Bringing in equipment and material*

Before the contractor brings personal property or private property of its employees on to the site, it must give site security a list of the property. The equipment may be removed from the site later only on the basis of the acknowledged list. Private property that is not needed during work may not be brought onto the site. If necessary, property should be left with site security's left luggage offices.

IT components require special registration to be brought into and removed from the site.

If dangerous materials are to be brought onto the site, this must be clarified beforehand with the customer.

No animals or weapons may be brought onto the site; the distribution of newspapers, flyers or brochures is also not permitted.

4.3.4 *Investigation procedures*

The contractor will be billed the costs for investigation procedures against the contractor or its employees.

5 Conduct on the Site, in the Plant, and on the Construction Site

5.1 *General conduct*

No actions that could lead to the endangerment of persons or property are permitted.

5.1.1 *Order and cleanliness*

Work areas, workplaces, storage and assembly areas must be kept clean, tidy, and safe.

Waste caused by the contractor must be collected separately and placed in the containers that are provided for this purpose. Provision of waste collection containers must be regulated in individual agreements.

Construction material is to be stored in the assigned storage areas with consideration of the applicable storage and environmental protection regulations. The storage area is to be marked with details of the responsible contact on the contractor's side.

5.1.2 *Access roads and roads on site*

Access roads and roads inside the site must be protected against damage. Contamination must be removed immediately. The customer must be notified about environmentally-relevant pollution.

Traffic on the site roads may not be obstructed or endangered with temporarily stored materials or construction equipment.

Measures that affect traffic (e.g. construction work near roads, such as sewage work, erection of mobile elevated work platforms, cranes, scaffold) must be coordinated with the customer beforehand to ensure traffic safety obligations.

5.1.3 *Entering plants*

Employees may not start work in the plant, on the construction site, or on the grounds of the site without the permission of the customer.

Employees may not enter facilities or rooms that are not within the contractor's area of work. The contractor's employees may only use the marked entrances and doors, the shortest access routes to the workplace, and only enter the allocated workplace.

Entering development sites and construction sites with a vehicle is permitted only with the customer's consent.

5.1.4 *Conduct at the workplace*

The workplace of the employees and the work to be carried out are based on the individual orders. The employees may work only at the allocated work area.

The customer's facilities may be used properly and in a technically correct manner only once their use has been approved.

5.1.5 *Operating plant facilities*

The contractor's employees may not activate electric switches, machines, auxiliary equipment or other operating facilities on existing plants.

Exceptions require the written agreement of the customer's plant/installation or construction management.

5.1.6 *Repairs to vehicles, machines and equipment*

Repairs to vehicles, machines, and equipment (e.g. oil change) where leakage of fuel or other mineral oils cannot be ruled out may be carried out only in approved, suitable workshops.

5.1.7 *Completion of work*

When the work is finished, the construction site or workplace must be cleared without delay. Material residues and all objects and fixtures must be removed and transported away from the site. Storage areas, workplaces, and access routes must be returned to their original condition.

When the order has been completed, the construction site/workplace must be left in a tidy, proper, and clean condition.

5.2 *Bans*

5.2.1 *Eating and drinking*

Eating, washing, and changing clothes is permitted only in the specified rooms. Regulations for using these rooms must be complied with.

5.2.2 *Compressed air for cleaning*

Compressed air may not be used to clean clothing, one's body, or the workplace. Exceptions only when the safety facilities specified by the Employers' Liability Insurance Associations are used.

5.2.3 *Fires*

Open fires are not permitted in the plants. Open flames are forbidden

Exceptions for official purposes require written approval (hot work permit).

5.2.4 *Smoking*

Smoking is banned on the site and in the plants. This includes passenger compartments in vehicles. Breaches will result in the person concerned being banned from the site. Smoking is allowed in specially marked areas.

A smoking permit in personnel accommodation can be applied for through the customer.

The smoking permit applies only to the defined location. A smoking permit sign is to be hung visibly in the respective room.

5.2.5 *Intoxicants*

The following are banned:

- Carrying or drinking alcoholic beverages or taking drugs at the site, incl. associated parking lots/blocks,

- Entering the site or being present on the site under the influence of drugs or alcohol, and
- Working under the influence of alcohol or drugs.

Within the scope of its duty of care towards its employees, the contractor's construction site management must immediately stop work and remove the employee from the site if there is a suspicion that this ban is being breached. Site security must be notified.

5.2.6 Radio devices, cell phones, and battery-operated devices

Contractors must register radio devices that they bring on to the site in writing with site security - if necessary, stating the frequencies that the devices use. The devices may be brought onto the site only when they have been approved by site security.

Site-specific rules apply to the operation of radio devices, cell phones, and battery-operated devices.

5.2.7 Photography and filming

Photography and filming as well as carrying cameras or video cameras is forbidden at the site. Exceptions require the written consent of the customer.

5.2.8 Walking on roofs

Walking on roofs without inspection and release confirming their load-bearing capacity and condition is prohibited. For repairs, suitable measures must be taken and documented to ensure safety.

5.2.9 Entering ex zones with vehicles

Basically, ex zones may not be entered with vehicles. Exceptions require express approval.

5.3 Traffic regulations

5.3.1 Road traffic regulations

The provisions of the German Traffic Code and the German Road Traffic Licensing Regulation as well as special plant regulations apply at the site and in the external parking areas. In particular, all vehicles and machines must always be in an operational and safe condition.

5.3.2 Maximum speed

The permitted maximum speed limit is regulated by the specific site.

5.3.3 Rail vehicles

Rail vehicles always have right of way; track crossings are not especially marked. All restrictions to the minimum clearance on tracks must be reported to the customer.

5.3.4 Driving and parking vehicles

Access to the construction site or the plant is permitted only by the intended traffic routes. Vehicles may be parked only where they cannot hinder or block the flow of traffic, the tracks, the fire service, fire extinguishing facilities (e.g. hydrants), rescue facilities (e.g. emergency showers), escape routes and entrances or exits.

6 TRAFFIC SAFETY

6.1 General definitions

6.1.1 Driving permit

People who operate cranes, mobile elevated work platforms, and forklift trucks must be properly trained and be in possession of a valid driving permit. To obtain a driving permit, employees must have proof of a valid medical checkup according to G 25 "Driving, steering and monitoring activities". Employees must present these certificates to the customer of their own accord.

6.1.2 Driving authorization

In addition to the driving permit for industrial trucks (DGUV Regulation 68), cranes (DGUV Regulation 52), mobile elevated work platforms/cherry pickers (DGUV Rule 100-500 or DGUV Principle 308-008), the contractor must issue a driver authorization for every vehicle driver at the customer's request.

6.1.3 Passenger transportation in trucks

Passenger transportation in trucks is limited to the number of fixed seats. Passengers may not travel on the loading area.

6.1.4 Passenger transportation with lifting gear

When passengers are transported with lifting gear, the statutory regulations such as DGUV Regulation 52 must be observed.

6.1.5 Special transportation

For special transportation of bulky or heavy goods, the contractor must notify the customer in good time about the road conditions and take all the required safety precautions. In particular, narrow sections of road, clearance heights, constructions above the road (e.g. pipe bridges), control and electric cables, etc. along the route must be considered.

Escorts (e.g. site security) must be requested in good time from the customer to guide and secure special transportation.

6.1.6 Work near tracks

Work near tracks may be carried out only by agreement with the customer and with the agreement of the rail operations manager.

An adequate safety distance to the outer edge of the track must be ensured if vehicles have to stop or park beside the tracks.

The minimum clearance outline of the tracks must be kept clear at all times.

The contractor must inform its employees about particular hazards near tracks, including the associated precautions (DGUV Regulation 77).

6.2 Driving vehicles

6.2.1 Vehicle drivers

Vehicle drivers must have the required driving permit and observe the plant or project-specific safety regulations at the point of delivery or collection.

6.2.2 Cranes

Cranes may be used on the construction site only when DGUV Regulation 52 "Cranes" is observed and may only be positioned at areas assigned by the customer.

Information about the permitted load-carrying capacity of equipment must be clearly visible.
Workplaces near cranes must be secured against access with barriers if necessary, lookouts must be provided. Hazard areas must be blocked off and be marked clearly.
Special permission is required for crane work near pipe bridges.

6.2.3 Using forklift trucks

Forklifts are subject to the DGUV Regulation 68 "Industrial trucks".

6.2.4 Using mobile elevated work platforms

Use of mobile elevated work platforms (e.g. scissors lifts, elevated work platforms on vehicles) must be agreed with the customer. Use of mobile elevated work platforms is subject to the regulations of VBG 14 / DGUV Rule 100-500/DIN EN 280. Site-specific definitions regarding the design of mobile elevated work platforms (e.g. additional safety system for the work cage, stop strips on the rail) must be observed.

7 WORKPLACE SAFETY

7.1 General definitions for safety at the workplace

7.1.1 Setting up the working area

Before a working area is set up, the organization and sequence of work and the necessary safety measures must be agreed between the customer, the participating workshops, the plant/ construction management and the contractor's construction site management.

7.1.2 Permits

The contractor's construction site management is responsible for obtaining permits before starting work in the plant or on the construction site. The instructions on the permits or work orders must be strictly adhered to.

Permits are, for example:

- Work order with list of safety measures
- Work permit (permit for work on equipment and pipelines)
- Entry permit (permit to enter vessels, confined spaces, etc.)
- Certificate of protective measures on electrical equipment (certificate with lightning symbol)
- Electrical and instrumentation fitting permit (secure terminal fittings)
- Permit to shut down facilities for plant safety
- Hot work permit (welding, cutting and similar work)
- Scaffold release
- Permit for roof inspections (permit to access and work on roofs that are not safe to walk on)
- Earthworks permit (permit to carry out excavation work)
- Release for radiometric measurement equipment
- Release for underground work
- Electrical and instrumentation permit.

The contractor's employees are informed about workplace-related safety measures by the plant management or a named person. This must be acknowledged in the permits. When the plant management or named person hands over the permit, this documents that the work is released. Permits must be present at the workplace/construction site during the work.

When the work is completed or when the permits expire, the original must be returned to the customer's plant or construction site management. The customer must define site-specific deviations from this rule.

7.1.3 Personal protective equipment

Personal protective equipment must be worn in the plant or on the construction site. The minimum personal protective equipment is clothing that covers the body, safety footwear and a hard hat. Other protective equipment is defined specifically for the site and is described in the permit system. The contractor must ensure that the protective equipment is in proper working condition at all times. Employees must be instructed in how to use the equipment properly.

7.1.4 Working with respiratory protective equipment

When respiratory protective equipment is used, the contractor must ensure that the required medical checkups and the necessary training are carried out.

Work with respiratory protective equipment may only be carried out by employees with a valid medical certificate (checkup G 26 "Respiratory protective equipment"). The required training and suitability must be fulfilled according to the "Rules for using respiratory protective equipment".

Proof must be provided that employees have taken part in the training and the refresher training. Persons with beards and sideburns near the sealing area of the equipment are not suitable for wearing respiratory protection.

7.1.5 Escape routes and traffic routes

Escape routes and traffic routes must be kept clear. The contractor's employees must familiarize themselves with the escape routes before starting work.

7.1.6 Using third-party facilities

Third-party crane systems, lifting gear, installation masts, hoists, etc., may not be used without the prior agreement of the owner. Information about the permitted load-carrying capacity of equipment must be clearly visible.

7.1.7 Dismantling

The contractor must make sure that all piping, apparatus, supply facilities and equipment have been cleaned by the plant operator and that they have been prepared for safe dismantling.

The individual phases of the dismantling and the loads to be transported must be discussed in detail with the customer's representative before work commences.

7.1.8 Extreme weather

It is the contractor's responsibility to find out about weather forecasts and to stop work if necessary. Storm warnings must also be observed.

In extreme weather conditions such as storms, tanks, vessels and materials under construction, such as timber, loose scaffold planks, metal and plastic sheets must be secured and/or tied down. Special care must be taken to ensure that every workplace is left in a condition that is safe against wind damage before work is interrupted.

Before work is recommenced, the condition of scaffolding etc. must be checked. The customer will not pay the contractor for lost work due to extreme weather conditions at the site (e.g. snow, storm, hail, cold).

7.2 Securing the working area

7.2.1 Closures of traffic routes

Closures of traffic routes and hindrances to traffic and the work of other contractors and the customer must be discussed in good time with the customer and be arranged by the customer.

The customer's representative is responsible for reporting this to site security in good time and for making the necessary arrangements with the local fire service and with other plants and construction sites.

7.2.2 Working at heights

In all work at heights the employees must be secured against falling (e.g. scaffolding, safety harnesses). If there is a risk of employees falling into water (e.g. in the port area), approved life jackets must be worn or life preservers with safety lines must be used. It should be examined whether a medical checkup according to G 41 "Work with a risk of falling" is required.

7.2.3 Work with a risk of falling

Where work is carried out and employees are at risk of falling, according to DGUV Regulation 38 "Construction work", Section 12, fall protection must be installed. Safety belts or safety harnesses with shock absorbers and rope shorteners must be used if no scaffold can be erected, no nets can be installed or where it is not possible to ensure safety through railings or handrails because of the specific features of the workplace or the work to be carried out.

Nets must be used in case of large openings. These nets must be designed, fixed and maintained according to regulation BDGUV Rule 101-011 "Use of protective nets". Streamers are not permitted as a barrier.

7.2.4 Covers and barriers

At places where there is a risk of falling, adequate cover and barriers (e.g. railings, handrails, safety lines, nets) must be installed and maintained. These places include openings in the ground, installation openings in grating, open ditches, pits, shafts, sewer openings and takeover points from lifting gear.

While ensuring one's own safety, grating, covers, etc. are only to be lifted when a fixed, safe barrier is provided. Grating and other covers must be replaced and fixed in place when work is finished. The provisions of DGUV Regulation 1, 33 "Barriers" must be observed.

7.2.5 Inspection with a work cage and truck crane

Principally, persons must not be transported using cranes with load suspension devices.

Transport in a work cage:

If the contractor (non-crane company) notifies the responsible employer's liability insurance association at least 14 before the work is due to be carried out, personnel transportation may be allowed according to DGUV Regulation 1 in individual cases.

The written notification from the company is not required if the inspection is accepted by the expert at the site who is authorized by the employer's liability insurance association. Acceptance must be registered at least 24 hours before work starts. Each time the crane is moved, the personnel transportation must be accepted again.

The "Safety rules for personnel lifting equipment" (DGUV Rule 101-005) must also be observed.

7.2.6 Opening system parts

A permit (e.g. opening permit or work permit) is required if parts of systems, such as vessels, pipelines, pumps, fittings, measurement and control equipment where hazards can be expected are to be opened or dismantled.

7.2.7 Work in confined spaces

An entry permit is to be issued for all work in vessels, silos, bunkers, appliances, pipelines, sewers, pits and other confined spaces. The rules of DGUV Regulation 1, Section 47 and DGUV Rule 113-004 must be complied with.

Ditches, pits, etc. deeper than 1.2 m are to be treated as confined spaces.

Vessels and sewers may only be closed again when they have been released by the customer's construction site management.

7.2.8 Work in confined, conductive spaces

When work is carried out in confined, conductive spaces, electrical equipment may be operated only with safety extra-low voltage (less than 50 V) or individually with protective isolation (230 V).

Welding systems must be approved for use in areas with increased electrical hazards. No-load voltage may not exceed 42 V with AC and 100 V with DC.

Confined spaces in terms of increased electrical hazards exist, for example:

- inside vessels
- in other spaces made from conductive material with dimensions less than 2 m³
- in spaces, steel scaffolding and other areas where one has to work under constraint or where there could be an additional hazard due to external conditions, such as heat or wet conditions
- in pits and shafts

The regulations of DGUV Rule 113-004 "Guidelines for working in vessels and confined spaces" must be complied with.

7.2.9 Entering electrical facilities

Only qualified electricians and trained persons may enter electrical facilities, such as switch rooms, with the permission of the customer's responsible electrician.

7.2.10 Work on electrical systems

Work on electrical systems is to be carried out in agreement with the statutory regulations (DGUV Regulation 3, VDE 0100 and with consideration of DGUV rules and information). Work may be carried out by electricians only when the system is de-energized and released by the customer on the work permit. This applies also to electrical facilities created by the customer and to the installation and replacement of fuses.

7.2.11 Underground work

Before earthworks begin, e.g. excavation work and driving in objects, the contractor must obtain information about the possible existence and routing of cables, ground cables, pipelines, etc. at the respective work area from the customer.

Earthworks, including soil tests, must be coordinated and may be carried out only with a written permit for earthworks.

If irregularities are noticed, such as an unusual color or smell of the soil, work must stop immediately and the customer must be notified.

Earthwork may only be done manually at risky locations. All cables, pipes, sewers etc. not included in the release for underground work must be considered as being in operation. Backfilling work may only be carried out when this has been released by the customer.

7.2.12 Work in sewer systems

Work in wastewater systems (sewage systems) requires a plant instruction referring to the possible hazards and listing clear measures to safeguard against these hazards. DGUV Regulation 21 ("Wastewater systems") and ZH 1/177 ("Safety regulations for working in enclosed spaces of

wastewater systems”), DGVU Rule 103-003 (“Working in enclosed spaces of wastewater systems”) must be observed.

7.2.13 Hot work

Hot work such as welding, burning, soldering, drilling and operating non-ex-protected equipment may only be carried out with a special written permit, the hot work permit.

Because of the special importance, express reference is made to compliance with the accident prevention regulation DGVU Information 209-016 “Welding, cutting and similar work processes” and DGVU Rule 100-500.

The contractor must provide a trained firewatch/fire pickets until all ignition sources can be excluded. Other specifications are defined in the hot work permit.

7.2.14 Handling gas cylinders

All relevant regulations and special instructions from the customer must be strictly adhered to for the storage of all types of flammable and explosive substances and gas cylinders.

The contractor must specify the storage locations outside construction sites.

A sign “Caution! Gas Cylinders” must be hung at entrances to workshops or other enclosed rooms. In addition, a sign with the floor plan of the building or room and the defined locations of the gas cylinders must be attached next to the entrances. Gas cylinders may be transported only with the covers screwed on. Cylinders must be secured during transportation and storage.

7.2.15 Handling radioactive materials

All official regulations concerning the use, storage, and handling of radioactive sources must be complied with.

Handling radioactive materials is allowed only when corresponding handling approvals in the contractor's name are available and a copy of the notice is presented to the site radiation protection officer. Only officially recognized experts may handle radioactive materials directly. Contractors that work with radioactive materials must report the location and time to the customer's radiation protection officer in writing at least one day before starting work. In particular, before radiographic testing of welding seams, the responsible radiation protection officer must check whether safety-relevant instrumentation near the testing location could be affected.

Places where radioactive sources are used must be marked and secured properly.

The regulations of CHV 10 “Radiation Protection Ordinance” and the ancillary regulations and conditions of the applicable handling approvals must be strictly complied with.

Site-specific regulations must also be complied with.

7.3 Equipment safety

7.3.1 Condition of equipment and devices

The contractor must ensure that all equipment, including personal protective equipment, is used properly. The German Ordinance on Industrial Safety and Health must be observed.

The contractor must keep all equipment, working tools and materials used in proper working order. The legally prescribed and contractually agreed test intervals must be complied with and be documented.

Equipment may only be used by suitably qualified employees.

In areas of the plant where there is a risk of explosion, only explosion-proof electrical devices and equipment may be used. Deviations from this regulation are permitted only by agreement with the customer (e.g. permit).

The customer may check installation equipment and tools used by the contractor and may take equipment that is not in a proper condition out of circulation at any time.

7.3.2 Scaffolding

All scaffolding, which includes small scaffolds, must be erected in agreement with the statutory regulations (DGUV Regulation 38 DIN 4420) and the additional regulations of the customer.

Every scaffold user ensures:

- that he or she checks the scaffold for obvious defects before the start of work in terms of its suitability for the work requirements
- that he or she is responsible for and has been instructed in the proper use of the scaffold
- that he or she does not make any changes to the scaffold!

If the scaffold is not suitable or has obvious defects, it should be blocked by removing the release sign and reporting this immediately to the responsible scaffold erector!

Portable small scaffolds must be used according to the manufacturer's erection instructions. The erection instructions must be attached visibly to the scaffold. Portable scaffolds may not be used to transport people or material.

The customer must approve and regulate the use of makeshift scaffold ("trestle scaffold") according to DGUV Information 208-016. The contractor must provide proof that it has trained its employees.

All scaffolds and working platforms must be accepted and released by the contractor and the responsible scaffolding company before they are used. They are released with a clearly visible sign near the ladder. The shape and content of the sign (e.g. "Scaffold released") are to be agreed between the customer and the contractor. A scaffold with no release or with a de-registration comment is blocked. Erection, modification and dismantling work may only be done by the responsible scaffolding company. Employees may not make changes that could affect safety in any form whatsoever.

7.3.3 Ladders

Ladders must be provided in a safe condition in accordance with their intended purpose according to DGUV Information 208-016 "Ladders and steps". The ladders must be clearly marked with a valid certification mark. A ladder journal must be kept as proof of the inspections.

7.3.4 Electrical equipment

Electrical equipment, plug-in devices and connection lines must comply with the applicable technical regulations and be adapted to suit the respective workplace. According to DGUV Regulation 3, "Electrical systems and equipment", portable electrical equipment must be tested at defined intervals by an electrician and checked by users for its proper condition before every use. The test by the electrician must be documented and be marked visibly on the device (e.g. sticker).

7.3.5 Slings and lifting gear

Winches, lifting and towing equipment must comply with the DGUV Regulation 54 "Winches, lifting and towing equipment" in terms of construction and features. In particular, proof must be provided that - in accordance with the above regulations - the tests were carried out before the equipment is first put into use and after major changes and also that the recurring tests were carried out. As proof of this, the specified crane journals must be kept at the construction site to be inspected at all times.

Slings may only be used according to DGUV Regulation 52 "Cranes".

7.3.6 Construction/ material hoists

Construction/ material hoists are subject to the German Ordinance on Industrial Safety and Health. Personnel may not be carried on these hoists and thus must be marked with a warning sign.

7.4 Protecting the customer's facilities

7.4.1 Sewers, cables, pipelines and power lines

The contractor must not damage sewers, cables, pipelines or power lines. The contractor must notify the customer in good time before it starts work to discover if and where any of the above are present and take the necessary safety measures

7.4.2 Gas and oxygen lines

Welding or cutting work is prohibited in the vicinity of gas or oxygen lines.

7.4.3 Insulation and cable trays

The covers of insulation and cable trays may not be stood upon or used as a support.

7.4.4 Pipe bridges

Storage of material and other construction site facilities as well as parking under pipe bridges is prohibited. Deviations to this regulation are permitted only with the customer's approval and with the agreement of the local fire service and the operator of the pipe bridge.

7.4.5 Work near public power lines

When work is carried out near public power lines and third-party traffic facilities, the customer requests the required approvals from the responsible authorities and companies. When the construction work begins, the contractor must notify the customer and the responsible local entities in good time and observe the conditions that are imposed. No installation work may be carried out near overhead power lines if the necessary safety distances according to VDE cannot be complied with. Fences and protective facilities must be observed and may not be removed. The responsible power company must be informed about crane and excavator work in the vicinity of high-voltage power lines. Its instructions must be observed.

8 ENVIRONMENTAL PROTECTION

8.1 General environmental protection measures

8.1.1 General definitions for environmental protection

The contractor must comply with the relevant environmental protection laws and regulations (e.g. German Immission Control Law, Waste Law, Water Management Law).

Special requirements are defined in writing or must be inquired about from the environmental protection officer via the customer's representative. The rules of the plant safety and emergency procedure manual (AGAP) or similar documentation must be observed.

The customer must be informed about work that could have an impact on the environment. Precautions must be taken to prevent environmental impacts (e.g. air, noise, water, soil). Unforeseen incidents that impact the environment must be reported to the customer without delay.

8.1.2 Wastewater systems

Substances (e.g. residues, waste, solvents) must not be released to waterways or the sewage system. Site-specific regulations must be observed.

8.1.3 Fueling vehicles

The regulations of the German Ordinance on Industrial Safety and Health and the German Regulations on Facilities Handling Substances Dangerous to Water must be observed when fueling construction site vehicles.

It must be ensured that when filling/fueling, no fuel gets into the soil, the sewage systems or waterways. Filling stations for own consumption and containers for flammable liquids must be approved by the customer and must be set up, secured and marked in accordance with the applicable regulations

8.2 Waste / products with hazard potential

8.2.1 Hazardous materials and waste

When waste and products that could be a hazard for humans and the environment are handled, the German Ordinance on Hazardous Materials (Section 14) and DGUV Regulation 1 (Section 7(2)) must be especially observed. A copy of the valid EC safety data sheet and the complete plant instruction according to Section 14 German Ordinance on Hazardous Materials must be presented to the customer (e.g. safety expert) and be kept at the workplace. If applicable, medical check-ups must be carried out. If asbestos is to be handled, the responsible authority must be notified without delay, but at the latest 14 days before the work starts.

8.2.2 Delivery of products with a hazard potential

If products with a hazard potential are delivered, the contractor must obtain information about the potential hazards of these materials. These products have to be labeled according to the German Ordinance on Hazardous Materials (GefStoffV). When hazardous materials are delivered (through a freight forwarder or by the contractor), the transport requirements of the German Ordinance on the Carriage of Hazardous Material by Road (GGVS) must be fulfilled.

8.2.3 Storage of products with a hazard potential

When substances according to the German Ordinance on Hazardous Materials are stored, the legal regulations and the regulations of the employer's liability insurance association must be complied with (e.g. German Ordinance on Hazardous Materials, German Ordinance on Industrial Safety and Health and German Water Management Law). The relevant technical rules must be observed, such as stacking height, storage location conditions, facilities to catch leaking materials.

Interim storage of waste without using container systems (e.g. on unpaved open areas) must be coordinated with the customer. The storage areas must be secured. It must be ensured that the ground, the surrounding soil or the sewage system is not contaminated. The storage location must be defined by the contractor and the customer.

Flammable waste, oily cloths and flammable materials or objects with a fire risk may be stored only in the facilities that are legally defined for them. These facilities must be marked on site accordingly.

8.2.4 Proper disposal

The contractor must comply with the regulations of the German Closed Substance Cycle Waste Management Law (KrW-/AbfG) with the relevant regulations (e.g. also the packaging regulations). The contractor must obtain information about the existing waste management system at the site from the customer.

Disposal of waste belonging to the contractor is the contractor's responsibility if not agreed otherwise.

The contractor must prove to the customer that waste has been disposed of properly. The corresponding proof (disposal certificates, waste manifests, etc.) must be presented to the customer

on request. The customer may check the waste to be disposed of by the contractor before it leaves the site.

Waste that the customer disposes of must be separated into recyclable fractions in accordance with the local requirements for disposal.

The contractor may not remove the customer's waste. Unlawful disposal of waste on the site will be prosecuted. The responsible entity pays the costs of disposal.

9 WHAT TO DO IN CASE OF ACCIDENTS AND EMERGENCIES

9.1 General definitions

9.1.1 Obligation to provide assistance

According to Section 323 c of the German criminal code (Failure to render assistance), every person must provide the required assistance in case of accidents, while ensuring that they do not put themselves at risk, and call for help, using the emergency phone number. The caller must wait for rescue crews to arrive and direct them to the scene of the accident or emergency. Their instructions must be followed.

9.1.2 First aid facilities

Before starting work, the contractor must obtain information from the customer about first aid facilities, the locations of eye rinses and body showers and what to do in case of an alarm.

According to DGUV Regulation 1, "First aid", the contractor must train first aiders. If the contractor has more than five employees, it must employ at least one first aider who has been trained in accordance with the guidelines of the employer's liability insurance association. The contractor must make use of the customer's rescue chain, including first aid in the first aid station.

9.1.3 Emergency/safety equipment

If emergency/safety equipment is specified for the contractor, such as respiratory protective equipment, masks, emergency showers, fire extinguishers, first aid boxes, they must be accessible at all times and be kept in a proper condition.

9.1.4 Fire alarm

Every fire and explosion must be reported without delay with a precise description of the location to the customer's site-specific reporting entity (e.g. local fire service). Employees must use the local fire-fighting equipment and keep traffic routes free to the best of their abilities until the local fire service arrives. The site-specific fire safety regulations must be complied with.

9.2 What to do in an emergency

9.2.1 Emergency phone numbers

Before starting work, the contractor must obtain information about the emergency phone numbers at the site and instruct its employees.

The emergency phone numbers for the

- Local fire service
- Fire, accident, hazard
- Site security and

- Environmental protection are site-specific.

9.2.2 *Recognizing an emergency*

An emergency exists, for example, in the following cases:

- The fire/alarm siren sounds
- Loudspeaker announcements
- You perceive acute danger
- Visual signals

9.2.3 *Reporting channels for emergencies*

When reporting an emergency by phone, the following 5 questions must be observed:

- Where did it happen (exact location)?
- What happened (accident or hazard caused by fire, gas, water)?
- How many people are injured or ill?
- What are the injuries or illnesses?
- Wait to answer questions!

Then immediately inform the plant's control room/office where the incident occurred and inform them that the emergency number has already been called.

9.2.4 *Measures in case of an incident*

If an incident occurs (e.g. emergency, hazard, malfunction), apart from the evacuation and rescue plans that are listed and drilled according to ASR and in the hazard area the following measures must be taken.

- Stop all work immediately ensuring you are not at risk
- Switch off all electrical devices (work equipment, heaters)
- Switch off ventilation systems
- Close doors and windows
- Leave the hazard area immediately - if gases or vapors are present, at right angle to the wind direction
- Use protective equipment for the purpose for which it was intended
- Go to the defined assembly points
- Make sure that everyone is there and report to the local fire service
- Follow the instructions of the supervisory staff
- Keep rescue routes accessible
- Keep exits, stairs, escape routes and fire extinguishing equipment free
- Do not use elevators
- Switch off vehicle engines and lights
- Remain calm

Follow the instructions of the persons who are entrusted with order and safety tasks. Remaining in or unauthorized entry to areas that are blocked off (e.g. with beacons or streamers) is strictly forbidden. Breaches of this may result in employees being banned from the site.

9.3 *Accidents and property damage*

9.3.1 *Notification of accidents and damage*

Accidents in which persons are injured or property damaged must be reported to the plant and/or site security and the customer without delay; a written report must then be submitted at the latest on the day following the incident.

The contractor's duty to inform the responsible employer's liability insurance association, the government office for occupational safety, the police, etc., are not affected by this. Before the accident is reported to the employer's liability insurance association, a copy of the report must be given to the employer's safety expert.

The contractor must cooperate with the customer and plant management to clarify accidents, property damage, or environmental damage.

9.3.2 Occupational accidents

In case of occupational accidents involving the contractor's employees, first aid must always be provided by the site medical service. The customer must be informed without delay.

Own transportation must not be used in case of accidents or illness.

In case of eye injuries through foreign bodies or substances getting into the eye, the person concerned must immediately go to an eye rinse station.

If an employee's skin comes into contact with irritating, corrosive or toxic chemicals, the affected areas must be rinsed immediately for at least 15 minutes under running water at the eye rinse or body showers.

Clothing, shoes, jewelry and wristwatches must be removed immediately under the shower. When the employee has finished washing, he or she must immediately go to the first aid station. If large areas of skin are affected or in case of very corrosive materials, the emergency crews should be notified to provide transportation.

9.3.3 Traffic accidents

All traffic accidents at the site must be reported to site security without delay.

The scene of the accident should be left untouched until the accident report is finalized. Apart from that, no one involved in the accident may leave the scene of the accident without permission.

9.3.4 Property damage/theft

Property damage and theft at the site must be reported to site security without delay.

The contractor is liable for personal injury and property damage caused by its employees at the site.

10 Supplements

10.1 Site-specific supplements

This guideline for contractors may be supplemented with site-specific rules. Essentially, this concerns the following sections:

- Section 1.4 Access procedure
- Section 3.1.1 Use of infrastructure facilities
- Section 3.1.2 Rental agreements
- Section 4.1 Site access, registration
- Section 4.2 Company ID cards
- Section 4.3 Checks, site security
- Section 5.2.6 Radio devices, cell phones
- Section 5.3.2 Maximum speed
- Section 6.2.4 Using mobile elevated work platforms
- Section 7.1.2 Permits
- Section 8.1.2 Wastewater systems
- Section 9.1.2 First aid facilities
- Section 9.1.4 Fire alarm
- Section 9.2 Emergency phone numbers
- Section 9.2.4 Measures in case of an incident
- Section 9.3.2 Accidents

Where applicable, changes/supplements have been documented as an addendum to the “Guidelines for contractors”.

10.2 Order / project-specific supplements

Apart from the listed regulations and definitions, order or project-specific supplements may be required in the technical specification, namely:

- Waste disposal Section 8.2.4
- Checking in and out Section 2.3.10
- Occupational safety Section 1.3.1
- Make-shift scaffolds, use Section 7.3.2
- Fire safety Section 1.3.3
- Construction site facilities Section 3.2
- Construction site organization Section 2.3.6
- Provision of energy Section 3.3.1
- Use of areas, rental agreements Section 3.1.2
- Mobile elevated work platforms, use Section 6.2.4
- Infrastructure facilities Section 3.1.1
- Coordinators Section 2.4
- Scope of services Section 1.2
- Personnel assignment list Section 2.3.6
- Quality deviations Section 1.5.3
- Quality assessment Section 1.6
- Protective equipment, personal Section 2.2.7
- Safety instructions Section 2.1.4
- Safety coordinators Section 2.4.3
- Environmental protection Section 1.3.2
- Consumption meters Section 3.3.4

11 Glossary

| | | |
|--------------------------|----------------------|---|
| AGAP | | Safety and emergency procedure manual |
| ASiG | | German Occupational Safety Law |
| ArbStättV | | German Workplace Ordinance |
| BauO | | German Construction Ordinance |
| BaustellV | | German Construction Site Ordinance |
| BetrSichV | | German Ordinance on Industrial Safety and Health |
| DGUV | | German Social Accident Insurance |
| DGUV Information | (formerly: BGI) | German Social Accident Insurance Information |
| DGUV Information 203-006 | (formerly: BGI 159) | Selection and Operation of Electrical Systems and Equipment on Construction Sites |
| DGUV Rules | (formerly: BGR) | German Social Accident Insurance Rules |
| DGUV Rule 113-004 | (formerly: BGR 117) | Working in vessels, silos, and confined spaces |
| DGUV Rule 101-005 | (formerly: BGR 159) | Safety rules for personnel lifting equipment |
| DGUV Rule 112-190 | (formerly: BGR 190) | Rules for using respiratory protective equipment |
| DGUV Regulations | (formerly: BGV) | German Social Accident Insurance Regulations |
| DGUV Regulation 1 | (formerly: BGV A1) | General regulations |
| DGUV Regulation 3 | (formerly: BGV A3) | Electrical systems and equipment |
| DGUV Regulation 6 | (formerly: BGV A4) | First aid |
| DGUV Regulation 38 | (formerly: BGV C22) | Construction work |
| DGUV Regulation 52 | (formerly: BGV D6) | Cranes |
| DGUV Information 208-016 | (formerly: BGV D36) | Ladders and steps |
| BImSchG | | German Immission Control Law |
| CHV 10 | (formerly: ZH 1/241) | German radiation protection regulation |
| DIN 4420 | | Work and protective scaffold |
| DIN VDE 0100-501 A1 | | Construction site electricity distribution |
| DIN VDE 0100-551 | | Generators |
| DIN VDE 0100-704 | | Regulations for the erection of high-voltage systems with nominal voltages up to 1000 V |
| DIN VDE 0612 | | VDE regulations for construction site electricity distribution systems for rated voltages up to 380 V AC and currents up to 630 A |
| DIN VDE 0660-501 | | Special requirements for construction site electricity distribution systems |
| G | | Principles for occupational health checkups issued by the employers' liability insurance associations |
| G 25 | | Driving, steering and monitoring activities |
| G 26 | | Respiratory protection equipment |

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|-----------|--|
| G 41 | Work with a risk of falling |
| GefStoffV | German Ordinance on Hazardous Materials |
| GGVS | German Ordinance on the Carriage of Hazardous Material by Road |
| ESH | Environment, safety, health |
| HVBG | Central association of the employers' liability insurance associations |
| KrW-/AbfG | Closed Substance Cycle and Waste Management Law |
| SHE | Same as ESH |
| H+S plan | Health and safety plan |
| SiGeKo | Coordinator according to Section 3 German Construction Site Ordinance |
| StAfA | Government Agency for Occupational Safety |
| StVO | German Traffic Code |
| StVZO | German Road Traffic Licensing Regulation |
| EHS | Same as ESH |
| TA | Technical instruction |
| VBG | Association of the employers' liability insurance associations |
| VBG 14 | Lifting platforms |
| ZH | Guidelines, rules, principles and information sheets from the HVBG |

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