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360° safety

## Safety Requirements for Contractors



Safety Requirements for Contractors

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## 1 General information

OGE expects all persons working at its offices, stations or on construction sites as part of a project to meet the highest standards of safety awareness and safety-compliant behaviour.

#### General

This **Safety Requirements for Contractors** brochure lays down fundamental safety rules to be observed by all contractors, subcontractors and suppliers as well as their employees. In addition, all relevant statutory rules and regulations on safety and accident prevention as well as all applicable codes of practice must be observed. Sites subject to inspection by the mining authorities must comply with mining law.

The contractor is responsible for the safety of its personnel and must take all measures necessary and contractually agreed to ensure that the contracted work can be completed safely. In accepting the purchase order, the contractor agrees to accepts these Safety Requirements for Contractors, and compliance becomes part of its contractual obligations.

#### Scope

These Safety Requirements for Contractors **apply to all activities** and thus to all personnel working in OGE's area of responsibility, on its behalf or under its supervision. In order to ensure that the work is carried out properly and safely, construction site regulations will be enforced where applicable, and will have to be observed in addition to these Safety Requirements for Contractors.

#### Non-compliance with safety requirements

OGE will check the contractor's personnel to ensure these Safety Requirements for Contractors are understood and adhered to.

OGE reserves the right to stop the contractor's work immediately if safety requirements are not met or if unsafe behaviour or unsafe conditions are identified, and to ban personnel and supervisors from the danger zone or from the OGE premises.

#### **Working hours**

Unless otherwise agreed, OGE's company working hours shall apply:



Monday to Thursday 07:00 - 16:15 hrs. Friday 07:00 - 15:00 hrs.

The contractor must apply to the competent authority for **permission to work on Sundays and public holidays**. A copy of the permit must be submitted to the OGE representative in charge of the contract (e.g. operations or site manager).

The provisions of the German Working Hours Act must be observed.

Any changes to working time arrangements must be agreed in a timely manner with the OGE representative in charge of the contract.

#### **Contact person**

All queries about measures relating to occupational safety should be addressed to the responsible operations or site manager. If you still have questions, please contact the Occupational Safety Department:



**Open Grid Europe GmbH** Occupational Safety Department T +49 201 3642-18801 / arbeitssicherheit@oge.net



OGE's seven basic safety rules must be observed and complied with by all persons working on OGE's field and construction sites:

- **1.** I take care of myself and my surroundings and encourage everyone to **behave safely**.
- **2.** Before starting an activity I **assess** potential **risks** and make sure I am aware of them.
- **3.** I always work **professionally** and take the necessary **time**.
- **4.** I always watch where I am going and do **not** allow myself to **be distracted**.
- **5.** I always wear the required and properly maintained personal protective equipment (PPE).
- 6. I ensure that the work area is clean and tidy.
- 7. I only use tested **tools** that are **suitable** for the job.



# **3** Access authorisation

#### Registration

**On sites with a reception**, contractor personnel must register with reception. Reception will inform the OGE representative in charge of the contract and then issue the visitor's pass. The visitor's pass must be returned to reception once the work has been completed.

**On sites without a reception**, contractor personnel must report directly to the OGE representative in charge of the contract. All arrivals and departures must be recorded in the visitors' book.



Contractor personnel must carry appropriate documentary **proof of identity** (e.g. identity card) and proof of social insurance (for employees from abroad: A1 or secondment certificate).

#### Induction and briefing

Before starting work, personnel must be instructed by their employer on the work to be carried out and on OGE's Safety Requirements for Contractors. In addition, it may be necessary at certain sites to undergo a site-specific safety briefing (see section 5).

#### **Bringing visitors**

Visitors may only be brought onto OGE premises and construction sites with the express consent of the OGE representative in charge of the contract. **Visitors must be accompanied at all times.** 

## 4 Emergencies and accidents

#### **First aid**

The contractor must put in place first aid measures as required by law and by the employers' liability insurance association.

#### This includes as a minimum:

- providing an adequate number of **first-aiders**
- providing first-aid facilities (an alarm device and first aid materials as a minimum at a prominently marked location)
- keeping a first-aid log
- a first-aid notice board showing:
  - the names of the first-aiders and if applicable company paramedics
  - all essential telephone numbers (e.g.: first-aiders, rescue coordination centre, hospitals, ambulance, emergency response doctor, referring doctor, fire brigade, police, etc.) in a clearly visible location

#### Alarms



In the event of an alarm (siren or warble tone at storage and compressor stations), the following must be observed:

- Stop all work immediately
- Switch off machines and equipment and inform others in the work area
- Extinguish any other existing ignition sources and refrain from smoking (in the authorised areas)
- Secure danger zones and clear **traffic routes**
- Make your way to the assembly point calmly and quickly
- Wait for instructions from operating personnel

Work may only be resumed after clearance has been given by the responsible OGE representative.

#### **Reporting hazard/accidents**

Hazards and unsafe situations (fire, gas leak, etc.), near misses and accidents must be reported immediately to the responsible OGE representative. The hazardous area must be vacated immediately.

#### **Directing rescue services**

If necessary, rescue teams must be directed by employees on site to any injured person(s) on arrival.

#### **Incident and accident investigations**

The contractor must carry out detailed incident and accident investigations, which must include a root cause analysis as well as an action plan, in cooperation with OGE's Occupational Safety Department.



5 Health and safety management

#### **Description of work procedures**

If requested by the OGE representative in charge of the contract, the contractor must provide a description of the work to be carried out and procedures in appropriate detail.

As a minimum, the description of the work to be carried out must include all essential steps and procedures, equipment and tools used, required personnel including qualifications and key safety measures required for the execution of the work.

The descriptions of the work to be carried out must be submitted to the OGE representative in charge of the contract before work commences.

In the event of any changes, the contractor must update and resubmit the work descriptions.

#### **Risk assessment**

Before commencing work, the contractor must prepare a risk assessment appropriate to the scope of work and the work activities and submit it to the OGE representative in charge of the contract upon request.

In addition to the hazards resulting from the activity or work process and the substances used, hazards resulting, for example, from the working environment and/or the existing plant, equipment and substances must also be taken into account. For this purpose, the contractor must obtain all necessary information (e.g. higher-level risk analysis, briefing on the risks/hazards arising from systems/the work area) from the OGE representative in charge of the contract.

The protective measures must be defined in the following order of priority:



- S Substitution
- **T** Technical protective measures
- **O** Organisational protective measures
- **P** Use of personal protective equipment (PPE) and measures to influence behaviour

The contractor is responsible for monitoring implementation of, compliance with and the effectiveness of the protective measures.

#### Safety induction and briefing

The contractor must ensure that its employees and the employees of its subcontractors are briefed on:

- the **content** of these Safety Requirements for Contractors
- other applicable statutory and employer's liability insurance rules, directives, regulations and instructions for use and operation, and
- about workplace and task-specific hazards and the associated protective measures as indicated by the above-mentioned risk assessment

Briefings must be **recorded in writing** and records of safety briefings shown to the OGE representative in charge of the contract on request before work commences.

Personnel not briefed on safety must not be deployed at any time.

The **frequency**, **nature and scope** of the routine safety briefings must be determined by the contractor in accordance with the relevant laws, rules and accident prevention regulations as well as the prevailing situation.

At certain OGE sites, it is necessary to carry out an IT-supported safety briefing before work commences.

#### Foreign-language personnel

The contractor must ensure an **adequate level of communication** in cases where foreign-language personnel are used. This requires the constant presence of the contractor's supervisor who must be proficient in the German language while also speaking the language of the contractor's personnel.

#### Safety documentation

The contractor must keep available all documents that provide a record of proper site safety management and submit these documents to the OGE representative in charge of the contract upon request. The documents must include, for example:

- an organisation chart of the staff on site and/or a list of all personnel, including details of a sufficient number of first aiders and fire safety assistants,
- detailed descriptions of the activities to be executed/work to be carried out,
- a risk assessment,
- technical operating instructions for equipment and activities as well as operating instructions for any hazardous substances handled (including safety data sheets),
- an emergency plan,
- proof of personnel briefings and induction (in accordance with the risk assessment and based on the Safety Requirements for Contractors, site briefings, etc.),
- proof of the suitability of the personnel deployed (qualification in accordance with applicable regulations, occupational health screenings, etc. ...),

- test certificates of plant and machinery,
- work assignments and permits,
- all necessary authorisations,
- schedule.

#### **Supervision**

The contractor must ensure the presence of a supervisor. The name of the supervisor must be made known in writing to the OGE representative in charge of the contract as part of the work permit application process before work commences. Work must not commence without the prior **appointment of a supervisor**.

The supervisor must monitor compliance with all safety rules and regulations (including these Safety Requirements for Contractors) through regular inspections.

The supervisor must be on site. The supervisor may be actively involved in the execution of the work, provided that this does not affect their duties as a supervisor. If several contractors are working at the same site, a suitable **coordinator** (in accordance with DGUV Regulation 1) must be appointed in writing in consultation with OGE to ensure that contractors do not put each other's staff at risk. Safety instructions issued by OGE or the persons authorised by OGE for this purpose must be acted on immediately.

If any shortcomings or unsafe behaviour are detected, the supervisor must:

- immediately issue suitable instructions to their personnel to comply with the safety requirements and safety measures
- initiate further **measures** as necessary to ensure that a safe condition is established or safe behaviour is achieved
- immediately report the incident and the measures taken to the OGE representative in charge of the contract

#### Work permits

A work permit must always be obtained before work commences.

Depending on the work at hand, these are:

- a work permit for contractors (OGE Form 13)
- an excavation permit (OGE Form 143)
- a hot work permit (OGE Form 17/203)
- a permit to work on electrical installations/equipment (OGE Form 142)
- a permit to enter vessels and confined spaces (OGE Form 17/166)
- a work permit for the right of way (OGE Form 60)

The contractor employees must be briefed about the details of the work permits by the contractor's supervisor as part of a toolbox meeting before work commences. A copy of the work permits must be kept at the place of work.

#### **Proof of qualification and capability**

The contractor must be able to provide evidence of the qualification and suitability of its employees assigned to the contract upon request by OGE.

If such evidence is not provided, employees may no longer be assigned to work on OGE premises.

#### **Emissions and consumption of resources**

Working methods and equipment which involve the least possible emissions must be used at all times.

Noise and dust as well as the consumption of resources must be minimised.



#### **Completion of work**

Following an interruption or the completion of the work to be performed, the supervisor must advise the OGE representative in charge of the contract about the status or completion of the work.



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## 6 Personal protective equipment



Personal protective equipment (PPE) as deemed necessary following the risk assessment for the work to be performed must always be used. In addition, the OGE requirements for PPE must be observed.

On construction sites that are not close to gas installations, the following PPE must always be worn:

- hard hat
- safety goggles
- body-covering work clothing (with long trousers)
- S3 safety shoes, ankle-high
- high-visibility vest, if increased visibility is required (e.g. in construction site traffic, when working near roads).

#### In addition, the following PPE must be carried:

- hearing protection
- protective gloves suitable for the activity.

In the vicinity of gas installations (in a so-called PPE area 2) and when working on gas installations, body-covering flame-retardant protective clothing in accordance with DIN EN ISO 11612, A1, B1, C1 must also be worn.

Persons who fail to wear the required PPE must not be allowed to continue with their work. In the event of repeated violations, OGE reserves the right to expel employees from the site and to bar them from carrying out any further work.

## 



#### **Facilities at the workplace**

The contractor's employees may use OGE's on-site amenities as agreed with OGE. For this purpose, the contractor must consult with the OGE representative in charge of the contract.

If changing rooms, portable office and storage cabins, mobile sanitary facilities, etc. have to be provided by the contractor, they must be set up in consultation with the OGE representative in charge of the contract. Workplaces, storage areas, staff amenities and sanitary facilities must be kept in a **tidy, clean and hygienic condition**. The relevant provisions of the Workplace Ordinance and the regulations of the employers' liability insurance association must be observed.

Hazardous substances may only be stored in the legally permissible quantities and must be kept in suitable containers in suitable locations as agreed with the OGE representative in charge of the contract. The contractor must provide a hazardous substances register and the associated safety data sheets.

Hazardous substances must not be stored in changing rooms, office rooms or office cabins, portable amenities, etc.

The quantities of hazardous substances kept at workplaces must be limited to what is needed on one single day/by one shift.

#### **Own-use filling stations**

Own-use filling stations and stationary LPG containers must be **set up**, **secured and labelled in accordance with applicable regulations**. The location of these facilities must be agreed with the OGE representative in charge of the contract.

#### **Driving on OGE premisses**

Driving on the premises is only permitted with **OGE's consent** in the explicitly approved areas. It is not permitted to leave site roads.

**Road traffic regulations** also apply on the company premises. The posted speed limit must be adhered to.

Motor vehicles may only be parked in the designated parking bays.

Accessibility of the site must be ensured, and access roads must not be obstructed at any time. **Debris or dirt on the road** must be removed immediately by the person responsible. Roads must not be used as temporary storage areas for materials or machinery.

#### **Road closures on the premises**

Any necessary **road closures** must be **agreed in good time** with the OGE representative in charge of the contract. The operations/construction manager must be advised of any heavy goods traffic on site at least 10 days in advance in order to allow work processes to be coordinated.



#### Order, cleanliness and safety in work areas

The contractor must keep all work areas, storage locations and amenities in an orderly, tidy and safe condition at all times.

Hazards must be removed immediately or be adequately made safe and marked.

**Falling hazards such as openings in floors, pits or trenches** must be covered with suitable, non-penetrable materials or be secured with barriers. Barrier tape and chains are not permitted as barriers where there is a risk of falling.

**Grating and rails** may only be removed with the prior approval of the OGE representative in charge of the contract. Dismantling is only permitted after all necessary measures, including the rerouting of site traffic, coordination and appropriate safety measures to prevent falls etc. have been taken.

Road safety equipment – including safety equipment on site premises – must be installed, checked and kept in good condition at all times in accordance with the applicable technical regulations (e.g. applicable technical rules on the safety of roadwork sites (*Richtlinien für die Sicherung von Arbeitsstellen an Straßen – RSA*)) and traffic regulations.

#### Alcohol, smoking and other intoxicants

The carrying and consumption of alcoholic beverages or other intoxicating substances is strictly prohibited.

Where employees have to **take medication**, the person responsible for the contractor must check whether the **employee's ability to work is in any way restricted** and whether the employee can be deployed.

Employees who appear to be under the influence of alcohol or intoxicating substances will be prohibited from entering the site and from starting work until the matter has been clarified.

Smoking is generally prohibited outside the designated smoking areas.

#### Work areas / conduct in the areas of the plant

Contractor employees must remain in the **work areas assigned to them** and **must not disrupt or hinder** operations. They are not permitted to remain at the place of work **outside the specified working hours**.

**Operating equipment (e.g. valves)** may not be entered, climbed onto, altered or operated without permission and express instructions from OGE.

**Private work** may not be carried out on OGE premises or construction sites.

The use of electrical devices that are not explosion-proof (including smartphones, smart watches, etc.) in explosion hazard areas is prohibited. A work permit must be obtained if the use of such devices is necessary for the performance of the work. The measures specified by the work permit must be observed.

**Photography** is only permitted with the express permission of the OGE representative in charge of the contract.

Warning signs, traffic signs and other safety instructions must be heeded and must not be altered or removed without the permission from OGE.

## 8 Work equipment and special requirements

All work equipment such as vehicles, machines, tools, appliances, etc. used as part of the contract work must comply with the relevant regulations and must be kept in a safe and tested condition. Compliance with the provisions of the Industrial Safety Ordinance (*Betriebssicherheitsverordnung*) and the associated technical regulations as well as the regulations of the employers' liability insurance association is mandatory.

A visual inspection of the work equipment must be carried out every working day before use, and it must be checked that the work equipment used is in a safe condition for operation.

Any defects found in equipment must be rectified immediately. If this is not possible, the faulty equipment must be withdrawn from use.

The use of OGE's work equipment is only permitted if approved by the OGE representative in charge of the contract. Any defects found on OGE's machines and tools must be reported immediately to the OGE representative in charge of the contract.



Work equipment subject to mandatory inspection must be inspected by a competent person within the periods stipulated by the employers' liability insurance association. The date of the next inspection must be clearly labelled with a sticker attached to equipment. If there is any doubt as to whether equipment has been inspected, the equipment must be taken out of service immediately.

#### **Safety devices**

Safety devices on plant and work equipment must be used as intended and must not be tampered with or removed without permission.

#### Protection against restarting / Lock Out - Tag Out (LOTO)

Before work is carried out on systems or machines, it must be ensured that all energy sources have been identified and isolated and/or switched off and discharged. This also includes stored energy (mechanical, pneumatic, hydraulic, electrical, material). Before starting work, the absence of energy must be established and the system or machine must be **secured against unintentional restarting** by suitable measures until the work has been completed.



This includes, for example, switching off the respective system or machine at the **main circuit breaker** before starting any maintenance, cleaning, setting work, etc. by arrangement with the OGE representative in charge of the contract and securing it against being switched on again using a **personal padlock or other suitable measures**.

Protection by means of a personal padlock **or other suitable measures** is required even if the main switch is already secured by padlocks of other employees.

During work interruptions including breaks, the system must remain secured by the padlock or other suitable measures.

The operating and maintenance instructions and/or operating manual for the respective system or machine must be observed.

#### **Electrical equipment and systems**

Electrical equipment such as hand-held power tools, extension cables or cable reels must be suitable and approved for the intended use, e.g. be fitted with overheating protection, splash water protection, rubber hose lines (HO7RNF/protected to at least IP 44) etc.

Electrical systems and equipment may only be installed, modified, repaired and tested by qualified electricians. Electrical equipment may only be connected to the power supply after consultation with the responsible person at OGE and may be supplied only from suitable supply points, e.g. site distribution panels, small site distribution boards. Sockets in building installations may not be used as supply points.

Electrical systems and equipment must be tested in accordance with the applicable rules and regulations before initial commissioning and recommissioning following modification.

In addition, tests of the circuit breakers (RCD test) must be carried out and documented at least every working day before use.

#### **Stripping cables**

Only suitable stripping tools or safety knives may be used for stripping cables. Tools with fixed blades may only be used after a separate risk assessment.

#### **Unprotected fixed-blade knives**

The use of knives with fixed, unprotected blades is particularly hazardous.

For this reason, knives with fixed blades such as cutter knives or knives with hook blades are allowed only in exceptional cases and after a separate risk assessment.

#### Use of angle grinders/cut-off tools

Suitable personal protective equipment, including tight-fitting safety goggles and hearing protection, must always be worn when working with angle grinders/cutters. When working in a forced position, e.g. when grinding weld seams, a face shield must also be used to prevent injuries caused by a sudden jolt of the cut-off tool.

When using cut-off tools, ensure that a suitable protective cover is used (closed cover when used with a cutting disc/knotted brush, or open cover when used with scrubbing or flap discs).

When carrying out cutting work on depressurised pipelines, some tension may have built up in the pipe.

For this reason, clamped or constrained components/pipes with a diameter of more than 2 inches/5 cm must not be cut with handheld rotating cutters such as angle grinders and cut-off tools. Instead, suitable methods involving the use of e.g. roller cutters, pipe saws, pipe cutters, cutting torches, etc. must be used for this work.

In special exceptional cases (e.g. casing pipe removal), hand-held rotating cutters such as angle grinders and cut-off tools may be used if a process description and a corresponding risk assessment are available and the work has been authorised by the person responsible at OGE.

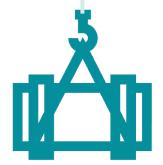
When selecting the cutting method, care must be taken to ensure there is no gas. It must also be bore in mind that residues such as dust and liquids having may have collected in pipework.

#### **Diesel-powered vehicles and machines**

In buildings and other areas with restricted air exchange (e.g. deep pits), the operation of combustion engines running on diesel fuel is generally prohibited. If there is no alternative to using diesel-powered vehicles and machines, suitable safety measures (diesel particulate filter/exhaust gas extraction, ventilation measures, etc. ...) must be agreed with the OGE representative in charge of the contract and be implemented in accordance with applicable regulations.

#### **Slinging and lifting loads**

- Slinging of loads may only be undertaken by trained and instructed slingers.
- Use only suitable and tested slinging gear and where necessary edge protection. Defective or untested slings and load handling accessories must be withdrawn from use immediately.
- Observe maximum load bearing capacities and angles of inclination.
- Ensure sufficient and clear communication (hand signs, radio).
  Only move the attached load after the slinger has given a clear signal.
- Do not swing over people. Do not stand or walk below suspended loads.
- If necessary, use **guide ropes** to guide loads during transportation.
  Do not guide the load by hand.
- When loads are lifted, do not stand between the load and fixed objects such as walls, machines or stored material. The swinging load could crush the slinger.
- Do not set down the load until all persons (including the slinger) have moved out of the danger area of the set-down point.



#### Handling compressed gas cylinders

- Compressed gas cylinders must not be **placed** in rooms below ground level or in other areas with restricted air exchange (such as narrow pipe trenches).
- Do not throw or drop compressed gas cylinders or roll them across the floor and protect them against tipping over and impacts.
- Only use suitable devices (cylinder trolleys, transport racks) for transportation/lifting and secure compressed gas cylinders in place.
- Ignition sources must be kept outside the protection zone of the cylinders.
- Close all **valves** on cylinders not in use and fit a valve cover cap.
- A standard pressure regulator/reducer must be installed downstream the cylinder valve.
- Only use **hoses** in perfect condition and suitable hose connections.
- Keep oxygen valves free from oil and grease.
- Liquefied gas: Anti-leakage devices must be used for any work below grade or if hoses are longer than 40 cm.
- Above grade, hose rupture safety devices may be used instead of anti-leakage devices.
- Do not store compressed gas cylinders with flammable gases (acetylene, liquefied gas) and oxidizing gases (oxygen) directly next to each other.
- Fuel gas and oxygen hoses must be at least 3 m long.

### Working at height, ladders, steps, scaffolding and fall protection

#### Working at height

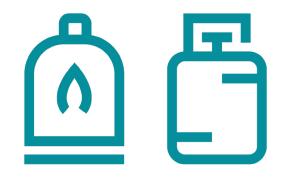
- Work at height of any kind may only be carried out after all necessary safety measures have been taken and a rescue plan has been drawn up.
- If PPE is used for fall protection, suitable anchorage devices must be defined and installed by the contractor in consultation with the OGE representative in charge of the contract before work commences. PPE may only be used by persons who
  - are at least 18 years old
  - have been instructed in the use of PPE and have written proof of this, and
  - have a valid certificate confirming they have completed an occupational health examination for work involving a risk of falling from heights

#### Ladders and steps

The use of platforms, scaffolding and mobile elevating work platforms has priority over the use of ladders. If ladders must be used, they are only permitted for short-term and light work up to a maximum height of 5 metres.

The use of ladders with rungs is only permitted if they are used as part of a pathway. Ladders used for carrying out work must have steps or be equipped with a platform.

- Do not use metal ladders in the vicinity of live apparatus or conductors.
- Do not overload ladders and steps.
- Position ladders and steps so that they are stable (suitable base, widened base, etc.) and secure them against sliding or falling over.
- Ladders that are set up along or on pathways routes must be prominently signposted and secured against being knocked over.



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#### Leaning ladders

- Ensure the correct leaning angle:  $\alpha$  = 65° to 75°
- Only lean ladders against a safe and stable supporting surface (not against glazing, wires or poles, etc.).
- Where higher levels have to be accessed, the leaning ladder must extend at least 1 m beyond the landing place and be secured against/prevented from changing position.
- Leaning ladders may only be used for carrying out work of limited scope. The maximum permitted standing height is 5 m.
- Leaning ladders must not be used if the materials present or in use pose additional hazards or if the work requires any machines to be operated with both hands.

#### Stepladders

- The top two rungs of stepladders must not be stepped on.
- Step ladders must not be used to access high-level workplaces.
- Step ladders may only be used in the fully extended position with spreader bar fully extended and locked in place.

#### Scaffolding

Once the scaffolding has been erected, the scaffolder must check that it has been assembled correctly and is functioning safely. The inspection must be carried out by a properly gualified person.

After completion and inspection by the scaffolder, the scaffold must be visually inspected by a qualified person of the entity that ordered the scaffold. This inspection must be documented in a suitable manner (e.g. on the scaffolding approval certificate or using the scaffolding checklist – OGE Form 055).

The scaffolder must affix a scaffolding approval certificate at every access point to the scaffolding.

If the scaffolding is not ready for use, it must be locked and marked with the symbol "P 006 - No access for unauthorized persons" (*"P 006 - Zutritt für Unbefugte verboten"*).

- Before each use, the scaffolding must be checked by the individual user for obvious defects.
- Scaffolding must be fitted with three-rail side guard.
- Scaffolding must be installed such that there is no danger of injury by falling objects.
- Mobile scaffolding may only be erected, modified or dismantled by briefed persons instructed to do so and under the supervision of qualified supervisors.
- Mobile scaffolding must be fitted with brake levers for secure and firm parking and must not be moved when occupied.
- Crossings/bridges between mobile work platforms and buildings are not permitted.
- The permitting procedure for allowing and denying access to scaffolding must be carried out in the same way as described above.

#### Use of mobile elevating work platforms

Mobile elevating work platforms may only be operated by persons who

- are at least 18 years old
- have been trained in the operation of the mobile work platform and can provide written proof to this effect
- have written authorisation from the contractor to do so, and
- have a valid aptitude test for driving and control operations and have undergone occupational health screening for work involving a risk of falling from heights.

Before a mobile elevating work platform is used, a rescue plan must be drawn up and the user must check that the proper condition of the work platform.

- A person trained in the use of the emergency lowering devices must be present in the work area at all times (within hearing distance and sight).
- The work area must be secured against access by unauthorized persons.
- As a rule, no other work may be carried out or equipment used in the vicinity of the mobile work platform unless the work has been coordinated and a separate safety concept has been drawn up for this purpose.
- Personnel working inside the cage must secure themselves against falling with PPE (restraint system).
- The manufacturer's operating instructions must be observed.



#### **Use of industrial trucks**

The following safety requirements must be observed when using industrial trucks in general and fork lifts in particular:

- Only deploy personnel who are at least 18 years old and have been reliably trained (forklift driver's license) and have written authorisation from the contractor and have a valid certificate showing that they have completed an aptitude test for driving and control operations.
- Before an industrial truck is used, it must be checked for proper condition and correct functioning.
- Forklift trucks must be equipped with an audible reversing warning signal and a wide-angle rear-view mirror.
- If visibility is restricted, a guide/signaller must be used.
- Forklift trucks must be equipped with a driver restraint system (e.g. seat belt).
- A fork lift may only be left only after it has been secured against unintentional motion (apply the parking brake and remove the key!)
- Do not walk or stand under a raised load.
- Only approved attachments may be used.



Pits and trenches must always be constructed in accordance with DIN 4142.

- During excavation work, all factors that could affect the stability of the trench walls must be taken into account. They include
  - disturbances in the soil structure (fissures, faults)
  - backfilling
  - groundwater drawdown
  - inflow of stratum water
  - strong vibrations (caused by traffic, pile driving)
- All pits and trenches with a depth of more than 1.25 m must be banked or shored up, with the slope angle depending on the type of soil. If vibrations occur or if the ground has only been backfilled, adequate safety measures must be taken even at shallower depths.
- Trenches and excavated pits must provide sufficient working space. The minimum widths in accordance with DIN 4124 must be observed. Larger working spaces may be required, depending on the work to be carried out.
- Around the edges of excavated pits and trenches a safety strip of least 0.6 m in width must be provided and kept clear of excavated material, obstacles and any objects that are not required.
- Excavated pits and trenches may only be accessed by suitable means such as stairs or, in exceptional cases, ladders. A second access must always be provided as an escape and rescue route.



- Crossings must be provided where necessary.
- The edges of pits/trenches must be secured in accordance with the relevant regulations.
- Construction vehicles, construction machinery, lifting equipment, etc. must maintain a safe distance from the edge of the pit or trench, with the distance depending on the total weight of the construction vehicle and the type of trench protection (embankment or shoring) in place. For sloped excavations, a distance of at least 1 m must be maintained up to a permissible total weight of up to 12 t. For vehicles with a permissible total weight of over 12 t, a distance of at least 2 m must be maintained.





#### Securing work sites on roads

Before starting work that will affect traffic on public roads, the contractor must obtain a traffic regulation (*"verkehrsrechtliche Anordnung"*) from the competent authority regarding the nature and scope of the safety measures to be implemented for the work site and inform the OGE representative in charge of the contract.

- The traffic regulation and the mandatory plan of road signs/rules ("Verkehrszeichen-/Regelplan") must be available on site.
- The work site must be properly equipped with all necessary protective equipment, traffic facilities and road signs in accordance with the regulations.
- The contractor must regularly check and maintain these facilities.
- Persons deployed in the street area and/or close to the traffic zone must wear suitable high-visibility clothing in accordance with the relevant standards.
- In particular, the Regulations for the Safety of Roadwork Sites (*Richtlinien für die Sicherung von Arbeitsstellen an Straßen – RSA*) must be observed.



#### Handling of hazardous substances

Before using substances or mixtures, the contractor must determine whether they are hazardous substances as defined by the Hazardous Substances Ordinance (*Gefahrstoffverordnung*). The contractor must check whether substances with a lower health risk can be used instead. In doing so, the contractor must determine the potential risks associated with the handling of the substances. The relevant safety data sheets and operating instructions must be kept at the site. Employees must be briefed on the safe handling of the substances. A list of hazardous substances and the safety data sheets and operating instructions for all hazardous substances used must be made available to the OGE representative in charge of the contract upon request.

- Containers or packaging must be labelled in accordance with applicable regulations.
- Vessels into which a substance has been filled must bear the same identification as the original container.
- Hazardous substances and mixtures must be stored so as not to pose a risk to the health of employees or to the environment.
- If the air at the workplace is likely to contain hazardous substances, measurements must be taken to determine whether the prescribed limit values are being observed and any necessary protective measures (in accordance with the TOP (Technical, Organisational, Personal) principle) must be taken.
- Job activity restrictions must be observed.
- Any **irregularities** which occur during in the handling of hazardous substances must be reported immediately to the OGE representative in charge of the contract

Work on gas installations and pipeline networks

## 9 Special hazards

Given the nature of our field sites and pipeline systems, the transported media and operating fluids, special hazards may arise for you.

> Below you will find some information on special hazards at out sites. We will inform you of any additional hazards by way of a higher-level hazard analysis or as part of the work permit.

> The risks addressed here must be taken into account by you for your risk assessment, and suitable safety measures must be taken.

If you have any questions, please contact the OGE representative in charge of the contract.

#### **Transported media**

Any leakage or ignition of the transported media in the pipeline network or in systems (including natural gas, coke oven gas, hydrogen, nitrogen and  $CO_2$ ) or improper use of equipment can lead to serious accidents.

The transported media are generally not odorized and are under very high pressure.

The respective properties of the medium must be observed. They include

- flammability
- ability to form explosive atmospheres
- harmful or asphyxiating effects

Personnel are therefore required to take suitable protective measures for the respective medium in areas in which gas is present. This also includes the proper selection and use of suitable gas detectors.



### Work on gas pipelines and piping in areas of the plant in which gas is present

Contractors and their subcontractors must have the appropriate licences and approvals (in particular as required by DVGW GW 301).

#### The following measures must be observed:

- Work may only be carried out after the necessary work permit has been issued and in compliance with the measures specified therein.
- Sufficient (at least 2 independent) escape and rescue routes must be provided. In excavated pits, at least one of the escape and rescue routes should have a staircase or stair tower. Any deviations from this requirement must be agreed with the person responsible at OGE.
- Hazardous areas must be cordoned off and marked (barriers, warning signs, warning tape, warning posts).
- Flame-retardant PPE must be used for all work on gas pipes.
- Ignition sources and fire loads must be removed from the work area.
- Suitable fire-fighting equipment must be available in the immediate work area - with an extinguishing capacity at least equivalent to two PG 12 fire extinguishers.



 In the event of sudden hazards, work must be interrupted immediately and OGE must be notified in accordance with the reporting diagram for the site or construction project.

#### **High-voltage interference (HVI)**

High-voltage overhead power lines or overhead lines used for AC traction systems that run close to the pipeline may cause a coupling with the adjacent pipeline or system components connected to it. This effect is referred to as high-voltage interference.

In areas subject to high-voltage interference, activity or workplacerelated risk assessments must be amended to include the risk of current passing through the human body.

The risk assessment will help define protective measures which will have to be incorporated into work and/or operating instructions.

#### **Electromagnetic fields (EMF)**

Our installations (electrically operated compressors, switchgear systems, frequency converters etc.) and pipelines inspected by smart pigs can produce strong magnetic fields which can have an effect on implants such as pacemakers, insulin pumps, hip implants, etc.

If employees with implants are scheduled to carry out any work, the OGE representative in charge of the contract job will provide them with information on the areas in which EMF interference can be expected.



# **10** Fire protection

All personnel have a duty to help prevent fires by exercising vigilant and prudent behaviour. The fire protection regulations at the field sites must be observed.



# **1** Environmental protection

#### Handling of wastes

Waste such as building debris, wood, glass wool, cable offcuts, insulation and packaging materials, cleaning rags, solvents, waste oils and all other types of waste collected during the contract work must be stored by the contractor in containers or receptacles approved for this purpose. The contractor is responsible for procuring the containers or receptacles and for arranging and implementing proper disposal in accordance with waste disposal regulations.

The containers or receptacles must be located in a suitable and secure place to be agreed with the OGE representative in charge of the contract.

#### The contactor shall not use OGE waste containers!

On construction sites outside enclosed premises, the waste generated must be disposed of immediately, if possible, or at least stored temporarily in a secure facility pending proper disposal.

On enclosed sites, waste disposal may be managed as required. The accumulated waste must have been removed from the construction site or field station by the time construction work is completed.

The contractor must conclude appropriate waste disposal contracts in due time and provide the OGE representative in charge of the contract with a copy. Surplus materials and scrap must be held in a separate, designated location in an orderly manner and also be removed by the time the contract work is completed. **If this waste is not disposed of in good time**, OGE reserves the right to have it removed at the contractor's expense.

#### **Transportation of hazardous substances**

The regulations governing the handling of hazardous substances must be observed when such substances are transported off enclosed premises of OGE or are moved around open construction sites. The contractor must comply with all obligations which arise, including for the shipper or haulier.

#### Handling of substances hazardous to water

Substances hazardous to water must be handled in compliance with applicable water law regulations (Water Resources Act (WHG)/ Ordinance on Installations for Handling Substances Hazardous to Water (AwSV), protected area ordinances etc.).

**Substances hazardous to water** or waste must be stored in such a way that watercourses or the soil cannot be contaminated. The same applies to the systems, machinery, devices and equipment used. Preference should be given to the use of type-approved facilities.

**Spilling** of substances hazardous to water must be avoided. The contractor is reminded of the ban on discharging substances hazardous to water into a body of water, the soil or sewers.

Should soil or water contamination occur **despite all precautions taken**, appropriate safety measures must be taken immediately to limit any damage caused, and the incident must be reported to OGE without delay.

#### **Use of specialist contractors**

Technical installations designed for the storage, filling, handling, production, treatment and use of substances hazardous to water may only be installed, erected, maintained, repaired or cleaned by specialist contractors as defined in the Federal Water Resources Act (WHG). In these cases, before work commences the contractor must present the OGE representative in charge of the contract with a valid certificate showing that it is either

- authorised to use a quality label of a monitoring or quality association recognised under German construction legislation, or
- that it has concluded an inspection contract with a technical monitoring organisation for a minimum of two years of monitoring.

In addition, the valid test report by the monitoring organisation must be provided showing the scope of work the specialist contractor is authorised to perform.

#### **Contaminated sites/areas**

If a site is suspected of being contaminated or polluted, the OGE representative in charge of the contract must be informed immediately and all work must be stopped.