

Operational SHE Requirements for Contractors

TenneT TSO GmbH Grid Service Offshore

The policies and principles of these SHE requirements are binding for all employees of contractors, including the entire chain of suppliers and subcontractors, as well as for the employees of all TenneT companies that perform work for Grid Service Offshore.

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List of Abbreviations

AED	Automatic External Defibrillator
PtW	Permit to Work System
AIS	Automatic Identification System
AI	Alarm Indicator
ALV	Installation responsible (Anlagenverantwortlicher)
WS	Work supervisor (Arbeitsverantwortlicher)
OWS	On-site work supervisor
EWL	Ordinance on the European List of Waste (European Waste List Ordinance - EWL)
Client	Contracting Entity (TenneT Offshore GmbH)
Contractor	Contracted entity
OI	Operating Instructions
BBAbF	Waste Management Officer
DGUV	Occupational Health and Safety Regulation
FACP	Fire Alarm Control Panel
CAP437	Offshore Helicopter Landing Areas - Guidance on Standards
CAT	Cable Access Tower
CCTV	Closed Circuit Television
CIF	Common Intermediate Format
D-A-CH-S	Group of experts from Germany (D), Austria (A), Switzerland (CH) and South Tyrol
D.A.C.S.	Door Access Control System
DGzRS	German Maritime Search and Rescue Association
DNV	Det Norske Veritas
ECS	Electronic Control System (Fire Suppression)
FAC	First Aid Case
FAT	Fatality
FAIR	Flowchart Analysis of Investigation Result
GIS	Gas Insulated Switchgear
GL	Germanischer Lloyd (Industrial Services GmbH)
GC	General contractor
HAZID	Hazard Identification Study
Hazmat Store	Hazardous Materials Storage
HGÜ	High Voltage Direct Current (DC) Transmission

HLO	Helicopter Landing Officer
HOC	Observation Card
HVAC	Heating, Ventilating and Air Conditioning or High Voltage Alternate Current
HVDC	High Voltage Direct Current
ICAO	International Civil Aviation Organization
IMO	International Maritime Organisation
LARS	Diver Launch and Recovery System
LAS	Local Application System
LED	Light Emitting Diode
LMRA	Last Minute Risk Assessment
Loop	Ring bus cable for connecting the fire alarm Input/output modules
LPO	Large Projects Offshore
LTI	Lost Time Injury
LTIF	Lost Time Injury Frequency
LWC	Lost Workday Case
MOC	Marine Operation Center
NAN	Handbook on grid control and working on the grid
GCS	Grid connection system
OIM	Offshore Installation Manager
PA/GA	Public Address / General Alarm
RAID	Redundant Array of Independent Disks
SES	Smoke Extraction System
RIB	Rigid-hulled Inflatable Boat
ROV	Underwater Remotely Operated Vehicle
SchuSiKo	Safety and Protection Concept
SeeAnIV	Offshore Installation Responsible
SGL	Service Group Leader
SG	Service Group
SHE	Safety, Health, Environment
SiGeKo	Safety and Health Coordinator
SIMOPS	Simultaneous Operation - work taking place simultaneously
SOLAS	Safety of Life at Sea
STCW	The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers Standards of Training, Certification and Watchkeeping
P/T	P/T - Camera, pan-tilt camera

THN	Technical Handbook Grid
TP	Technical testing laboratory (VdS)
VE	Access Permit
VdS	Association of Property Insurers (Verband der Schadensverhüter e.V.)
WIPOS	Wind Power Offshore Substation
RCT	Recurring tests
DACS	Door Access Control System

1. Purpose

Workplace safety is one of TenneT's highest priorities. We want to ensure that there are no accidents at work and that every employee comes home healthy again. The Client sees contractors (**hereinafter referred to as the Contractor**) as an integrative part of their operational activities and wishes to achieve this goal together with all Contractors through good preliminary planning and responsible, considered action and thus lay the foundation for successful cooperation.

2. Scope of Application and Validity

This document contains the operational SHE requirements for the Grid Service Offshore area of TenneT TSO GmbH, for work on TenneT Offshore GmbH assets/equipment as well as their operating companies. These are binding for all employees of the Contractor (including all subcontractors) and for employees of TenneT TSO GmbH (**hereinafter the Client**).

The scope of validity includes all work pertaining to maintenance of Client facilities (offshore AC/DC grid links and other facilities) during the operating phase. This also includes accompanying projects such as the construction of storage facilities, transport and other logistics work as well as larger conversion and repair projects at the aforementioned facilities that are managed under Large Projects Offshore (LPO).

The Client's SHE requirements are organised into a generally valid **Part A** and a **Part B**, which contains additional mandatory policies for all work in the Offshore Zone.

The Offshore Zone comprises all seaward areas including all intertidal areas of the German coast and tidal mud flats, as well as the Exclusive Economic Zone (EEZ).

An Offshore DC Grid Link comprises the converter stations on land and in the Offshore Zone as well as the entire cable route (land, mudflat, nearshore and undersea cable) and equipment components on the OWP platform.

An Offshore AC Grid Link comprises the substation (or parts thereof) on land and in the offshore areas of the entire cable route (land, mudflat, nearshore and undersea cable) as well as equipment components on the OWP platform.

The SHE requirements of the Client apply in addition to the Client's 'General SHE Requirements for Contractors', reference number SSC15-037, international and domestic laws and regulations as well as the respectively valid accident prevention regulations. These requirements provide specific details regarding the statutory requirements applicable to the Client. All work is to be performed according to the state of the art.

Relevant laws and regulations can be found in Appendix A IV (without any guarantee of completeness). 'List

of relevant laws, regulations, policies and information'. If any SHE-relevant legal changes occur during performance of the work, the newly applicable regulations shall apply.

On offshore platforms within the German EEZ, additional requirements from the respective safety and protection concepts are to be observed, in particular **Part C** and **Part D**.

For work on the sites of other Contracting Entities such as wind park operators, ship yards, suppliers and general contractors, their requirements shall apply.

The SHE requirements of the Client are an integral component of the contract.

3. Reference to other guidelines/other applicable Client documents

- Guideline SSC15-037 - General SHE requirements for contractors
- Guideline CSS13-014 "Definition and Classification of SHE Incidents"
This document contains policies that define which incidents are to be considered to be incidents requiring investigation, how incidents are to be classified and how the number of hours worked is to be calculated.
- Guideline CSS15-009 'Reporting, Investigation and Review of SHE Incidents'
This document contains general policies for the reporting of SHE incidents and defines which incidents are to be investigated (when, who, how) and how incident investigations are reviewed at various levels of the company.
- Guideline SSC17-005 'Approved Procedure for Investigation of SHE Incidents'
This document contains a list of procedures that in the view of the Client are suitable for determining the direct and underlying causes of SHE incidents.
- Safety and Protection Concepts
- Handbook on grid control and working on the grid (NAN)
- Emergency meeting point plan for mobile worksites

The aforementioned documents will be made available to the Contractor.

Part A

Basic operational SHE requirements

A.1 SHE documents of the Contractor

A.1.1. Minimum requirements for SHE documents

As reflected in the SHE policy, the goals, guiding principles and Safety Vision of the Client, safety, health and environmental protection are top priorities for the Client.

In order to implement these notions even during the preparation phase of the tendering process / negotiations, the Client requires potential Contractors to provide SHE documents. The required documents are listed in the table below and must be submitted to the Client along with the tender documents. Each and every element of the SHE documents must apply specifically to the order. Placeholders for information that will only be known at a later time can be left in the documents (for example regarding specific responsible persons or the responsible Occupational Safety Officer). After completion of the respective contractual negotiations, these SHE documents are provided directly to the Client's operations team.

'XXX' in the document is to be replaced by the name of the Contractor.

Document	Document name
Written confirmation of acknowledgement and recognition of the SHE requirements of Client (see Appendix A I)	Annex_15_XXX_Bestätigung_SHE_AG
Occupational Health, Safety and Environmental Protection Information Sheet (see Appendix A II)	Annex_15_XXX_Auskunftsbogen
Proof of SHE management system (e.g. SCC, OHSAS, etc.)	Annex 15_XXX_SHE-MangSystem
SHE Plan (see A.1.2 and Appendix A III)	Annex 15_XXX_SHE_Master
Safety Culture Ladder certificate or a plan of action for acquiring the certificate	Annex 15_XXX_SHE_SCL
Sample risk assessments (see A.9.2.1)	Annex 15_XXX_SHE_Gefährdungsbeurteilungen

A.1.2. SHE plans

SHE Plan

Maintenance and upkeep work is partially performed by Contractors and / or its subcontractors.

For all planned works, the Contractor must prepare a detailed SHE plan (see [Appendix A III](#)) for implementation of statutory provisions and the SHE requirements of the Client.

The SHE plan is viewed as a 'living document' that is influenced by the findings of HAZID / HAZOP meetings, SHE inspections / safety walks, SHE incidents (accident investigations), audits and management reviews and the like in order to ensure a constant improvement process.

SHE Annual Plan

The SHE Annual Plan should cover at least the following topics:

- Description of KPIs
- Measures for improvement of the SHE culture (SHE awareness)
- Description of local incentive programs

A.2 Occupational health and safety organisational structure

The Client has developed an occupational health and safety organisational structure according to the legal requirements of German occupational health and safety and environmental protection laws which considers both the needs of employees of the Client as well as the needs of employees of the Contractor who are assigned to the Client's facilities.

Each Contractor is required to develop an SHE organisational structure on the basis of applicable laws and the requirements of the Client. This SHE organisational structure must be shown on an organisational diagram to the Client prior to awarding of the contract and must be explained as necessary.

A.2.1. Emergency response organisation

As the operator of the facilities, the Client has prepared evacuation and rescue plans with alarm and emergency plans. Each Contractor must strictly comply with these plans.

For work in public areas outside the Client's closed off facilities, as well as on ships, barges and other watercraft, the Contractor must develop their own emergency response organisational structure and prepare appropriate evacuation and rescue plans with alarm and emergency plans. These documents must be provided to the Client for inspection no later than **4 weeks prior to the beginning of work**.

For special work on Client equipment (e.g. rope access), as part of its traffic safety obligations the Contractor must prepare its own emergency and rescue plans and must reconcile these plans with the existing evacuation and rescue plans and alarm and emergency plans for the Client's equipment.

A.2.2. Environmental protection organisation

Each Contractor must ensure that an appropriate environmental protection organisational structure is in place for the performance of their work. In the event of collaboration between multiple contractors, the environmental protection organisational structure must be reconciled with that of the Client. The environmental protection policy comprises at least:

- Protection of water resources (see sections [A.19](#), [A.19.1](#) and if applicable, also [B.27.7](#))
- Waste management plan (see section [A.19.2](#) and if applicable, [B.27.7](#))
- Hazardous materials and goods management (see sections [Q](#) and [A.14](#))

A.3 Designated persons and persons to be appointed (role descriptions)

A.3.1. Persons within the occupational safety organisational structure to be appointed by the Client

A.3.1.1. Responsible persons pursuant to §13 of the German Occupational Safety Act

- Managing director with corporate and operational responsibility (facility operator)
- Managers with transfer of duties according to designation letter
- Responsible electrician (EF) DIN VDE 1000-10

A.3.1.2. Occupational safety specialists

The Client's occupational safety specialists are a staff unit within the Senior Manager Grid Service Offshore office that advises responsible persons regarding all occupational safety concerns that arise as part of work on onshore and offshore facilities. They contribute to the implementation of the Client's SHE requirements and safety and protection policies as well as applicable laws, regulations and other relevant regulatory frameworks.

An occupational safety specialist from the Client is designated to be the contact person for the approving authority (BSH) regarding SHE matters. The Client's occupational safety specialists are also available to the Contractor for questions regarding SHE requirements that need to be implemented. Close collaboration between the occupational safety specialists and the Contractor's SHE experts / officers is expressly desired. Agreements with the Contractor must however always be made subject to consultation with the Client's responsible persons.

Specific duties pursuant to § 6 German Occupational Safety Act (ASiG):

- Ensure compliance and implementation of the Client's SHE requirements as well as applicable occupational safety and health regulations.
- Inspection of all documents and documentation relevant to occupational safety as part of the requirements of this safety and protection policy. Random sample inspection of documents for plausibility
- Notification and reconciliation of necessary steps with responsible persons in the event that hazards are recognised or in the event of violations of occupational safety and health protection regulations
- Inclusion of company managers in the event of conflicts regarding the implementation of policies relevant to occupational safety, as well as fundamental decisions. During the decision-making process, additional SHE officers of the Client are to be included
- Provide advice to all involved parties regarding all topics and duties relevant to occupational safety
- Regular walkthroughs of worksites and construction sites. As needed, the presence of SHE officers can be arranged for a longer period of time in consultation with the management. Documentation of the walkthroughs must be kept.
- Ensure continuous improvement of processes with respect to occupational safety and appropriate adaptation of the safety and protection policies
- Acceptance and internal forwarding of incident reports as well as documentation in the Client's documentation system in the event of SHE-relevant events
- Assistance with accident investigations as well as decisions regarding protective measures
- Assistance with the performance of emergency drills
- Contact person for occupational safety authorities
- Consultation and support for the preparation of risk assessments and operating procedures

Authorised powers:

- Authority to give orders to personnel and contractors in the event of situations of acute danger (impending danger).
- Direct reporting rights and reporting line to the company's managing director(s).

A.3.1.3. Client SHE officer (company representative)

The SHE officers are part of a staff unit within the Senior Manager Grid Service Offshore office and advise responsible persons regarding their legal obligations in the areas of waste management laws, emissions laws, water and soil resource protection, hazardous goods, hazardous materials, fire protection, etc.). Close collaboration between the occupational safety specialists and the Contractor's SHE experts / officers is expressly desired.

Agreements with the Contractor must however always be made subject to consultation with the Client's responsible persons.

Among other duties, the duties of SHE officers include:

- Advice to supervisors and senior managers regarding all SHE-relevant topics and duties.
- Advice and support for supervisors, senior managers and occupational safety specialists for the preparation of risk assessments and operating procedures as well as with inductions.
- Advice for the planning of facilities with respect to environmental protection requirements.
- Regular inspections of worksites and construction sites
- Ensuring continual improvement of SHE procedures
- Processing of environmental incidents and support for their analysis
- Contact with authorities, regulatory agencies and liability insurance associations regarding all environmentally relevant topics
- Advice regarding the planning and upkeep of operational facilities and social facilities
- Advice regarding the procurement of technical work materials and the introduction of work procedures and work materials
- Advice regarding the selection of personal protective equipment

Authorised powers:

- Authority to give orders to personnel and contractors in the event of situations of acute danger (impending danger).
- Direct reporting rights and reporting line to the company management.

A.3.1.4. Health and Safety Coordinator (SiGeKo)

If work that falls under the German Building Site Regulation (BaustellV) is performed, then depending on the scope of the work, or if it is expected that multiple employers will be simultaneously or sequentially active on the site, one or more Health and Safety Coordinators shall be designated in writing. Designation of the Health and Safety Coordinator must occur in a timely manner so that he can perform his duties regarding planning of the execution of the construction project.

The duties of the Health and Safety Coordinator are derived from BaustellV and the specifications provided in the construction site occupational safety policy RAB 30 (suitable coordinator). The requirements / duties of the Health and Safety Coordinator that are derived from the construction site occupational safety policy RAB 31 (health and safety protection plan), RAB 32 (Documentation for later work) and RAB 33 (general principles pursuant to § 4 of the German Occupational Safety Act regarding the application of the German Building Site Regulation must all be fulfilled.

The Health and Safety Officer must consult with the Client's occupational safety specialists regarding implementation of the SHE requirements and other specific policies of the Client.

The Client has the right to appoint a Health and Safety Officer with the authority to give orders.

A.3.1.5. Installation Responsible (ALV)

Pursuant to DIN VDE 0105-100 and NAN, the Installation Responsible is responsible for the occupational safety of the worksite. When work is performed on or near electrical equipment, he must ensure that notice is provided regarding special hazards and that the facility is operated in a safe manner. The Installation Responsible gives instructions to the work supervisors at the worksite. Therefore, the constant presence of the Installation Responsible at the worksite is generally not necessary. The Installation Responsible must be a certified electrician and have applicable experience with the 'operation of electrical equipment', know the regulations and internal policies applicable to operation of the electrical installation and be familiar with the performance of safety measures.

Authorised powers:

Authority to give orders to personnel and Contractors regarding electrical hazards during work on or near the Client's equipment.

A.3.1.6. Person pursuant to German Social Accident Insurance (DGUV) Regulation 1 'Principles of Prevention' § 6

If multiple companies are active at a single worksite, a person shall be designated at the Client's facilities who is to coordinate the work performed (hereinafter referred to as the 'Coordinator pursuant to DGUV Regulation 1'). He must ensure that measures for the prevention of and protection against hazards caused by any party are taken and that occupational health and safety requirements are implemented onsite. In this context, he is authorised to give orders and his orders must be followed. He must also include the occupational safety specialist and / or the Client's SHE officer and coordinate with them regarding processes relevant to occupational safety. He must ensure that there is appropriate coordination during the entire work process.

Authorised powers:

In order to protect against particular hazards, he has the authority to give orders to all personnel in his area of responsibility.

A.3.1.7. Safety Officer

Safety Officers within the meaning of DGUV 211-021 are line workers in the various organisational units that perform these duties in addition to their normal activities (on a voluntary basis).

If Safety Officers are present on site, they are available as contact persons for questions regarding occupational safety. Technical safety instructions from Safety Officers must be followed.

A.3.1.8. First Aiders

In general, all service employees of the Client hold first responder certification in accordance with DGUV Regulation 1 and are familiar with how to use the first aid equipment kept on site.

A.3.1.9. Fire Protection Assistants / Evacuation Assistants

In general, the service employees of the Client have basic knowledge of how to use the fire extinguishing equipment kept on site and are familiar with the equipment used to rescue people. With their existing knowledge of the site, they are able to provide necessary information and assistance to the Contractor's personnel in the event of an evacuation.

A.3.2. Contractor Responsible Persons

During the entire bidding phase, Contractor responsible persons and their representatives for SHE-compliant implementation of the contractually agreed services must be designated in writing (organigram).

The responsible persons are responsible for the planning, management and monitoring of the duties and obligations assigned to them in writing (transfer of duties).

All responsible persons are obligated to perform regular checks (e.g. through 'safety walks') at the various worksites (together with responsible persons from the Client, as necessary).

The duties and obligations of the Contractor's responsible persons can include:

- Selection of suitable subcontractors
- Selection of suitable employees
- Training / qualification of employees

- Appointment of authorised and competent persons
- Performance of risk assessments
- Initial and ongoing training of employees
- Monitoring of compliance with laws and regulations as well as policies pertaining to the current SHE requirements of the Client, safety and protection policies and the SHE plan.
- Performance of safety walks
- Continued development and improvement of the SHE plan
- Initiation and performance of accident investigations and development of improvement measures
- Organisation and holding of meetings, incl. record-keeping (meeting minutes, meeting forms, etc.).
- Fulfilment of document management and reporting obligations both within the operation and between operations.
- Ensuring that appointments are created and updated.

In accordance with DGUV Regulation 1, the active onsite responsible person must be notified in a timely manner prior to the begin of work regarding designation of the respective coordinator.

A.3.3. Work Supervisor (AV) / Onsite Foreman (AVO)

A Work Supervisor (AV) must be designated by each Contractor for the performance of work on, with or near electrical equipment. This person has the responsibility of ensuring that all applicable safety requirements, safety provisions and company instructions are complied with during the performance of work. The Work Supervisor (AV) is to be briefed by the Client's Installation Responsible (ALV) regarding particular hazards at the facility, after which he is responsible for occupational safety at the worksite. Work may only take place in the presence of the Work Supervisor (AV).

Duties of the Work Supervisor (AV) / Foreman (AVO):

- Knowledge of all contracted work and experience with the performance of such work,
- Knowledge of the requirements and standards that must be applied for performance of the contracted work,
- Knowledge of the contents of the respective work process descriptions, risk assessments and operational instructions, etc.,
- The ability to recognise the hazards associated with the contracted or planned work.

Work Supervisors (AV) are generally certified electricians. 'Persons trained in electrical work' may also assume the role of a Work Supervisor (AV) (see DIN VDE 0105-100). Proof of corresponding training as a 'Person trained in electrical work' (EUP) or proof of certification as an electrician (EF) must be provided to the Client **4 weeks prior to the begin of work.**

If no work is performed on or near electrical equipment, a foreman (AVO) is to be designated.

Each Contractor must provide written notice to the Client regarding at least one person who has been designated to bear direct responsibility for the performance of work on-site.

A.3.4. Designated Occupational Safety Officer

The Contractor and its subcontractors must designate at least one occupational safety and environmental protection specialist to the Client who is responsible for monitoring implementation and compliance with occupational safety requirements and with the policies from the Client's SHE requirements.

The person must act independently, i.e. he must not be a responsible person as defined in section A.3.2. The Contractor's designated Occupational Safety Officers must perform regular walkthroughs and document the results of the walkthroughs. A form or report with the results of the walkthrough must be sent to the Client within **2 working days**. Serious SHE deficiencies must be reported in advance by telephone to the Client's MOC (also see chapter [A.8.1](#), [Appendix A VI](#), [Appendix A VII](#)).

The designated Occupational Safety Officer must collaborate with the Health and Safety Coordinators (SiGeKo's) and occupational safety specialists as well as the company representatives of the Client or the Contractor and coordinate as necessary regarding questions of occupational safety and environmental protection.

A.3.5. First Aiders

All persons assigned to the Client's facilities must have basic first aid skills.

At least 10 per cent of the personnel (one for each Contractor) assigned to the Client's facilities must hold a nationally recognised first aid certification obtained through a basic course consisting of at least nine instructional units of 45 minutes each. In Client facilities in which 10 or fewer employees are on duty at any given time, at least two employees must be able to provide evidence of a current first aid certification.

Refresher first aid training must be performed in accordance with the respectively applicable national regulations.

In Client facilities, depending on the risk assessment (e.g. for live line work or 50 onsite employees or more), one AED / defibrillator must be kept on hand.

A.3.6. Overview of persons / responsible institutions that must be designated by the Contractor.

No later than four weeks prior to work begin, the Contractor must provide any required certificates of training and / or education to the Client for the following persons:

- Occupational Safety and Environmental Protection Officer

Upon mutual agreement with the Client, the following will be designated:

- Responsible person and representative

All designated persons must be reported to the Client. The Contractor must immediately report every change to responsibilities, e.g. the representation plan, etc. to the Client.

A.4 Responsibilities

A.4.1. General

Independent of the Client's SHE requirements, occupational health and safety concerns lead to an obligation to fully observe and comply with all laws, regulations and accident prevention provisions relevant to occupational safety as well as generally recognised technical safety and occupational medical rules. Supervisors and responsible persons must also take measures on the basis of risk assessments in order to protect employees from accident and health risks.

Necessary changes to the coordinated or planned work processes and procedures must be immediately shared with the responsible persons at the Client and coordinated with them. The changes to work processes and procedures must be evaluated again in the risk assessments.

A.4.2. Responsibilities of the Client to the Contractor

Depending on the type of work, the Client must ensure in advance that the Contractors it commissions to perform work are suited to the work, have received appropriate instruction from their employer regarding the hazards to their safety and health that are present during their work, that they have received statutorily required instruction and that compliance with the SHE requirements of the Client by all involved parties is guaranteed (for example: NAN, Form ASG1, see Appendix V).

At the request of the Client, the Contractor is required to make appropriate documents, evidence and certificates available. The Client has the right to perform an on-site random sample review of the certificates

and proof of qualification of individual employees. The Client must provide the Contractor with all SHE-relevant policies (e.g. SHE requirements, NAN, etc.). The Client will notify the Contractor within **8 weeks of conclusion of the contract**, or immediately after each change, regarding the persons who will act as occupational safety specialists or facility managers for the Client.

For the purpose of safe performance of the work, the Client must support the Contractor with the risk assessment with regard to operations-specific hazards in the Client's facilities. The Contractor can ensure this by sharing any findings (that are relevant to its work) regarding facility specific hazards found in the risk assessments performed according to the Industrial Safety Regulation (BetrSichV), prior to beginning work.

For this purpose, attention must be paid to the following information in particular:

- the activities of the Contractor that relate to operational procedures and work processes
- the condition of installations, facilities and devices on which the Contractor intends to perform its work
- existing risk assessments
- operational instructions for the Client's facilities and equipment
- additional personal protective equipment that must be used for the performance of such activities
- evacuation and rescue routes
- first aid equipment
- policies regarding mandatory and prohibited activities / equipment

The Client reserves the right to review compliance with the aforementioned policies at any time and without prior notice, for example in the form of walk-throughs (so-called safety walks) by safety specialists (SiGeKo) or employees of the Client who are involved in the work.

In order to increase safety awareness among the employees of the Client and to communicate occupational safety concerns to the Contractor, selected employees from the Client's middle and upper management will perform safety walks.

As part of the safety walks, short meetings will also be held with individual employees who work at the Client's facility. The conversations may last a few minutes, and the time required for this is a component of the work order.

A.4.3. Transfer of work / use of subcontractors

Subcontractors may only be used to perform work with the consent of the Client. When awarding work to other companies the contractor must in particular meet its duty of selection and duty to consult in accordance with §§ 7 and 8 of the German Occupational Safety Act (ArbSchG) as well as §§ 6 and 7 of DGUV Regulation 1 'Principles of Prevention'.

A.4.4. Contractors and their subcontractors

Depending on the respective country where production or performance of the service takes place, the Contractor must comply with all applicable and relevant provisions of labour law and any related provisions under public law and social law, including applicable tariff agreements and / or works agreements that specify policies regarding the assignment, health, safety and well-being of employees as well as the protection of all of their rights.

If the Contractor employs foreign employees within the territory of the Federal Republic of Germany, these persons must have legally entered the Federal Republic of Germany, have legal permission to stay in the Federal Republic of Germany and have the right to be employed by the Contractor in the Federal Republic of Germany. In areas where German and European labour laws as well as employers' liability insurance policies and rules do not apply, for example on ships sailing under foreign flags, SHE plans to include risk assessments must be presented that meet at least the protection goals of international SHE standards and policies and the SHE requirements of the Client.

When performing work, the Contractor has the primary responsibility to implement occupational safety requirements in accordance with the German Occupational Safety Act (ArbSchG). The Contractor and its subcontractors must transfer in writing the duties and responsibilities with respect to health occupational and environmental protection to work / technical supervisors and managers as well as other persons with managerial roles.

Each Contractor must ensure that all subcontractors that it commissions as well as their employees are suited and permitted to perform the contracted work, both in terms of technical qualification and in terms of occupational medical requirements and must also ensure that they have completed all necessary inductions and training. For work with increased hazard potential, qualified personnel with relevant career experience of at least several years must be used. Persons under the age of 18 may not take part in work with high hazard potential. Corresponding proof must be provided to the Client by request and on short notice. The completed instruction training and education is to be entered in a so-called safety pass that must always be carried by each employee (for example the safety pass issued by the trade association Erdöl Erdgasgewinnung e.V. – WEG).

Prior to the beginning work, the Contractor is required to coordinate with the responsible persons, in particular with the service groups and coordinators as defined in DGUV Regulation 1, in order to decide upon suitable protective measures. The Contractor, in particular the work supervisor / foreman, must fulfil his responsibility to supervise employees working at the site and must coordinate with other contractors working at the site in order to avoid creating hazards for each other.

The Contractor is required to take all appropriate measures to prevent damage and harm to persons and objects through contamination, waste, noise or other emissions during performance of its work; any legally specified threshold values in this regard may not be exceeded. Each Contractor is responsible for ensuring that its responsible persons / supervisors, including its subcontractors, who work in the Client's facilities, are aware of the respectively valid SHE requirements of the Client, also including the health and safety (SiGe) plan as necessary and any applicable occupational safety and accident prevention provisions.

The Contractor undertakes to perform hazard assessments for any work that it is to perform, to coordinate these assessments with those of participating companies and to present this assessment to the Health and Safety Coordinator (SiGeKo) for comment. If work processes of different contractors may conflict with each other, then local conditions must be reviewed. This applies in particular for excavations and trenches, working areas that are high up or other dangerous worksites as defined in Building Site Regulation (BaustellV) Annex II as well as all traffic routes, scaffolding, the power supply and general lighting of the construction site. If the Contractor identifies deficiencies, these must be reported immediately to the manager on site and the Contractor must see to it that they are remedied.

All provisions of the Client's SHE requirements also apply to subcontractors of the contractor. The Contractor is required to sufficiently inform its subcontractors regarding the Client's SHE requirements and all SHE policies and must ensure that these requirements are implemented. Reference is made here to the German Occupational Safety Act (ArbSchG) regarding the obligation of the Contractor and its subcontractors to prepare hazard assessments. Each Contractor must instruct its employees regarding the legal requirements and policies of the Client's SHE requirements.

A.4.5. Contractor traffic safety obligations

Each Contractor must meet its traffic safety obligations and is solely responsible for ensuring traffic safety for all hazard sources that it creates as part of its contractual work. Any personnel necessary for monitoring and compliance with traffic safety obligations must be designated.

The Contractor must ensure that no hazards for other persons or objects arise in its working area. Unavoidable hazard areas must be secured so that unintentional entrance by third parties is prevented. The Contractor must ensure that no persons remain in hazard areas if there is potential for materials to fall from

or fly away from the work being performed.

Construction site fencing:

In the vicinity of the Client's substations the following types of site fences are used:

- 1) 'Within substation' site fencing: The site fence must provide additional protection against unintentional entrance into safety buffer zones as defined in VDE 0105-100 surrounding high voltage equipment by persons involved in construction work and other non-electrical work within the substation.
 - Minimum height of 1800 mm.
 - There is no requirement for mesh width or 'sneak-under' protection.
 - Vertically stable and level placement (heavy stand platform).
 - If gates are used, these must be protected by suitable means against unauthorized opening (for example a chain with hanging lock).
 - Both ends are to be fitted with an electrically conductive ground connection.
 - The individual spans of site fencing must be screwed together above and below with stable clamp connections.
 - Approximately every 30 m within each section, an additional connection of the traffic control equipment must be made to the grounding equipment, (dependent on local conditions).
 - If there is a gate in the site fencing, for example a movable section of site fencing, a ground connection between the fixed site fencing sections and the gate must be installed, for example a flexible and conductive connection with a diameter of at least 10 mm².
 - The first site fencing section to be raised must be grounded. As described above, the remaining fencing sections are attached to this grounded section of site fencing. In part due to increased inducted voltage potential, it is not permitted to first completely or partially assemble site fencing and later connect the ground.

- 2) If site fencing is used as a temporary substitute for facility fencing, any demands made by authorities must be followed without further consideration. Independent of this, the requirements of VDE 0101 'High-voltage equipment nominal AC voltage greater than 1 kV' must be met.

The design is analogous to the 'within substation' fencing, with the difference that:

 - Mesh size max. 50 mm (as necessary affix suitable mesh material to the inside of the site fencing).
 - 'Sneak under' protection is required (the lower edge of the site fencing may be no more than 50 mm above the ground).
 - 'Danger High-Voltage' warning sign must be posted on every fourth section of site fencing.

A.4.6. Supervisors

All supervisors must implement the operator obligations transferred to him with respect to occupational health and safety protection in accordance with occupation safety laws applicable in German and professional liability insurance requirements and must also regularly review the measures from the risk assessment for their effectiveness.

Basic obligations of the employer pursuant to the German Occupational Safety Act (ArbSchG):

Taking into consideration the specific circumstances, the employer is obligated to take all necessary occupational safety measures that influence the safety and health of employees as they perform their work. The employer must review the measures regarding their effectiveness and adapt them to changing circumstances as necessary. In doing so, he must strive to improve the protection of the safety and health of employees. In order to plan and implement these measures, the employer must ensure a suitable organisational structure, taking into consideration the type of work and the number of employees, provide the necessary means and take preventative measures so that the measures are observed in all work and integrated into operational leadership structures as necessary, and employees meet are able to meet their obligation to contribute.

In this regard following principles are to be observed, among others:

- The work must be structured so that any endangerment of life and health is avoided as much as possible and any remaining hazard is kept as minimal as possible.
- Hazards must be prevented at their source.
- The state-of-the-art, occupational medicine and hygiene as well as other verified findings from occupational research must be taken into consideration for the measures.
- Measures are to be planned with the goal of properly linking technology, work organisation, other working conditions, social relationships and the influence of the environment on the workplace.
- Personal protective measures must take priority over organisational and technical measures.
- Suitable instruction is to be provided to employees.

A.4.7. STOP signal in unsafe situations

Every person contributes to the improvement of work safety by acting conscientiously and proactively. Each person should speak up if they find unsure situations at the site and has the right to interrupt directly affected work with a situation-appropriate stop signal if there is a direct danger to life or limb (imminent danger).

A.5 Language policies

The Contractor must ensure that any employees that it or its subcontractors' employees are able to speak and understand the German language or always have direct access to a supervisor who meets these requirements and who can provide instructions to the employees at any time, in their native language, so that the instructions and orders of the Client can be understood and followed.

In offshore areas the following applies:

If the majority of the Client's managers and on-site employees are able to speak English, then in coordination with the Client and with the consent of the Client's supervisors, then communication may also take place in the English language. If this is the case, it must be ensured that all employees are familiar with the commands and general instructions in the English language and can clearly understand them. If communication occurs exclusively in English, then all instructions must be available on-site in English language. Moreover, in such cases the Client must be notified prior to the beginning of work.

All documents relevant to authorities and SHE must be prepared in German or in the national language of the respective area of validity. For the offshore area, these must also be prepared in the English language as necessary.

The language policies of the Client are also specified in the contracts.

A.6 Working hours

The requirements of the German Working Hours Act (ArbZG) must be met. The maximum daily working time without breaks and rest periods is 10 hours. After the end of their daily working time, employees must comply with an uninterrupted resting time of at least eleven hours.

Work on Sundays and holidays must be reported to the competent labour inspectorate and moreover require the consent of the Client. Special local requirements from official authorisations must be met.

For work in the offshore area see Chapter B.2.

A.7 Visitors and access to the Client's facilities

- For visits and tours, timely permission must be obtained from the Client's supervisors, in particular from the Installation Responsible (ALV) and the coordinator as defined in DGUV Regulation 1. All persons must check in with the supervisor prior to entering the Client's facilities.
- Before entering the Client's facilities, all persons must receive a documented safety briefing.

No visitors are permitted in offshore areas. In certain cases, special permission can be requested - see [Chapter B.4](#) and [Appendix B II](#).

A.8 Reporting

A.8.1. Reporting and investigation of SHE-relevant incidents.

All persons that suffer an accident or near-accident in the facilities of the Client or on the way to or from the facility of the Client as part of the agreed work (on-site accident) must, after receiving first-aid measures in accordance with the rescue plan, immediately notify the supervisor with the Client (for example the Service Group supervisor or coordinators as defined in DGUV Regulation 1).

The Client's MOC and the respective supervisor to be notified by phone accordingly. Moreover, all unsafe conditions and incidents that lead to environmental damage including accidents with ships and vehicles must be immediately reported to the MOC. Reporting of the events, with description of the course of events, the cause and measures to be taken, is to be documented in writing in the Client's incident report (see Appendix A VII) and sent immediately to the MOC, the Client and the respective supervisor after internal coordination. After coordination, the relevant data may also be sent that another form of report. An overview of the modes and times of reporting can be found in [Chapter A.8.2](#).

The legally prescribed requirement to report to authorities and employers' liability associations as well as the internal policies of the Contractor or subcontractor regarding incident reporting remain unaffected.

A.8.1.1. Work accidents

A work accident is a sudden, temporary incident caused by external influences that causes bodily injury and is connected with the insured activity. Work accidents must be reported when they occur. The severity of the injury is irrelevant.

A more precise description can be found in 'CSS 13-014 Policy – Definition and Classification of SHE incidents'.

A.8.1.2. Accidents causing environmental damage or with environmental relevance

These involve inputs of environmentally damaging materials into water resources, air and / or soils that result from the performance of work by the operation. It is not relevant whether the work performed was planned or not.

A.8.1.3. Near misses

Critical situations whose outcome is considered to be 'good again', but which definitely had hazard potential are called near misses. Potential can be discovered and remedied through reporting of near misses. Therefore, all employees must report any critical situations which arise to the supervisor and to the Client. All affected employees are to be made aware of the situation through communication methods that are appropriate to the work environment.

This also includes events that have potential consequences for the environment, such as leaking of transformer oil into the catch basin.

Protective measures taken due to near misses must be communicated at the site immediately (for example by means of a Toolbox Talk).

A.8.1.4. Unsafe situation / potential incident (PI)

An unsafe condition is a deviation from the designed technical condition of the facility and working materials, from organisational policies regarding the preparation and performance of work or from personnel requirements. An unsafe condition can lead to a work accident or environmental damage if for example employees act in an unsafe manner, trip or collision hazards are present, operational materials or equipment parts are missing or faulty or even if persons are sick. These incidents must also be immediately reported to the supervisor with the Client. A SHE reporting card must be used to report such incidents at the facilities of the Client (HOC - Hazard Observation Card). Any detected unsafe situations must be discussed at the site in order to decide on immediate measures (as necessary with involved persons) in order to avoid potential

work accidents. The measures are to be decided at the site in conjunction with the Client's supervisors and as necessary with the occupational safety specialists and as necessary with the Client's SHE officers.

A.8.1.5. Incident investigation and causal analysis

In order to avoid similar incidents in the future, after reporting to supervisors it is necessary to determine the causes of the incident through an analysis meeting (with a walkthrough as necessary). Any necessary measures that are determined through this process must be implemented immediately.

The Client's occupational safety specialist or the leader of the Client's investigation team coordinates with the Contractor's supervisors and involved persons regarding the necessary scope of the incident investigation.

The following types of incidents must be investigated

- Fatality (FAT)
- Lost workday case (LWC)
- Restricted work case (RWC)
- Medical treatment case (MTC)
- SHE - High risk incident (HRI) - incident in which death is possible
- Environmental incident (EI)

Investigation of the following types of incidents is optional (at the request of the Client).

- Unsafe situation / potential incident (PI)
- Near miss (NM)

The Client must be included in the incident investigation process for all incidents occurring in the Client's facilities.

A method must be used for the incident investigation that is suitable for determination of both direct and indirect causes. The Client uses the Tripod Beta Method and also expressly recommends Its Contractors to use this method. A list of methods approved by the Client is included in the policy 'SSE 17-005 - Approved Methods for SHE Incident Investigation'.

The incident investigation is to be performed in a manner analogous to the policy 'CSS14-037 DE - Incident Investigation Procedures'.

The Client's supervisors (including company management) reserve the right to conduct a meeting with the Contractor's supervisors, with victims and with affected persons for the purpose of clarifying the incident.

A.8.2. Overview of incident reporting methods and reporting periods

The following Table A. 1 Shows the reporting methods and reporting periods for incidents related to work on contract for the Client that occur on the way to or from the worksite (commuting accident) or at the worksite (worksite accident).

Table A. 1: Overview of reporting methods and reporting periods for incidents that occur at facilities or worksites of the Client.

Incident	SHE incident report card (HOC)	Notification of the MOC by phone	Incident report	Incident investigation report
SHE incident				
➤ FAT, LWC, LTI, MTC (Medical Treatment Case) and HRI		immediate	by the next day	within two weeks
➤ FAC (First Aid Case)		on the same day	by the next day	
➤ near misses, unsafe situations and other SHE findings	on the same day with Client representatives on site	After the Client performs its assessment or by the following day as applicable	After the Client performs its assessment or by the following day as applicable	
Commuting / travel accidents				
➤ FAT, LWC, LTI, MTC (Medical Treatment Case) and HRI		immediate	by the next day	within two weeks
➤ FAC (First Aid Case) and minor accidents		on the same day	by the next day	

A.8.3. Preparation of accident statistics

In order to recognise specific accident risk factors in a timely manner and to be able to mitigate negative developments in a targeted manner, the Client keeps monthly statistics with SHE-relevant incidents, including incidents involving all contractors. Key figures such as the LTIF (= number of accidents leading to work absence of at least one day per million hours of work) are determined so that comparison can be made with the key figures of similar companies (benchmark).

In order to determine these key figures, an overview of the number of hours worked is needed from all contractors. Therefore, the end of each calendar month, at the latest however by the **fifth working day of the following month**, a list of the hours worked in the Client's facilities must be sent to the Client's senior manager / area manager and to the SHE division. The list should distinguish between the individual contractors and the individual facilities.

A.8.4. Monthly SHE report

Without being first requested to do so, the Contractor must send the Client an SHE status report on a monthly basis, no later than the **fifth workday of the following month**.

This SHE status report includes at least the following items.

- Number of hours worked by employees (Contractor and subcontractors)
- Calculation of LTIF (Lost Time Incident Frequency)
- Number of fatalities
- Number of accidents with lost time
- Number of accidents leading to limited ability to work
- Number of medical treatments
- Number of first-aid treatments
- Number of incidents in which damage occurred to equipment and property
- Number of environmental incidents
- Number of near misses
- Number of unsafe situations
- Number of SHE walkthroughs
- Number of determined issues
- Number of remedied issues

A.8.5. Classification of SHE incidents within the Client

In the Client's documentation system, SHE incidents are assigned to the senior manager who is responsible for hiring of the Contractor.

A.8.6. Construction log / Proof of performance

The contractor capitalize that must document all work in an appropriate form.

For reconstruction and disassembly measures or for larger repair and maintenance measures, that are processed by LPO for GSO, each contractor must keep a construction log/proof of performance both for its own work as well as for the work of its subcontractors.

The construction log / proof of performance must include at least the following information:

- Number of and names of employees
- Hours worked
- Description of work
- Hazardous work performed with permit procedure (work permits issued with predetermined monitoring measures)
- Number of accidents
- Number of minor incidents (including all environmental incidents)
- Number of near misses
- First aid treatments provided
- Beginning and end of work
- Weather conditions
- Machines, devices and tools used, including any ships or helicopters involved
- Meetings and briefings conducted
- Record of visitors to the worksite

The Contractor must ensure that the construction log / proof of performance is kept in a suitable form. The construction log must be presented to the Client's supervisors by request.

A.9 Risk management and hazard assessment

A.9.1. HAZID- and HAZOP-studies

Prior to beginning larger campaigns and extensive repair and maintenance measures, HAZID and HAZOP studies must be performed by the Contractor for the individual facilities for the purpose of an identification of the activity and facility related hazards.

The Contractor must organise these HAZID and HAZOP studies and invite and include involved subcontractors as well as the Client.

For HAZID- and HAZOP-studies performed by the Client, the Contractor and its Subcontractors must participate in any related meetings at the request of the Client.

The purpose of the HAZID study is to recognise all significant hazards connected with the respective activity. The procedure for HAZID is specified in (for example) EN ISO 17776:2002 (Guidelines on tools and techniques for hazard identification and risk assessment)

The HAZOP study is a technical safety procedure and facilitates investigation of the safety of technical facilities. Standard IEC 61882:2001-05 'Hazard and operability studies' (for example) describes the HAZOP procedure.

The goal of HAZID and HAZOP studies is to allow early detection of hazards in order to influence appropriate protective measures during construction of the facilities and planning of the work, in order to prevent the hazards from occurring, by:

- identifying potential hazards,
- identifying potential changes in work processes,
- investigating their causes,
- evaluating resulting risks and
- determining measures to prevent or reduce these risks

The results from the studies therefore serve as the basis for hazard assessments during the operational phase.

A.9.2. Documentation of risk minimisation and measures for achieving protection goals

A.9.2.1. Hazard assessments

Both the Client as well as all contractors and their subcontractors must conduct hazard assessments prior to performing work. Relevant results from the HAZID and HAZOP studies must be included in these hazard assessments. The hazard assessments must be prepared in accordance with applicable legal requirements, provisions, regulations, technical rules (in particular TRBS 1111) and standards, for example for:

- all planned work pursuant to §§ 5 and 6 of the German Occupational Safety Act (ArbSchG) and consideration of the work procedure and work environment.

- all work involving the handling hazardous materials or the release of hazardous materials, in accordance with § 7 of the German Hazardous Substances Ordinance (GefStoffV).
- all work materials that could present hazards for employees, in accordance with § 3 of the German Industrial Safety Regulation (BetrSichV).
- safe and healthy design of the workplace in accordance with § 3 of the German Workplace Ordinance (ArbStättV).
- hazards due to emitted noise or vibrations, in accordance with § 3 of the German Occupational Health and Safety Ordinance on Noise and Vibration (LärmVibrationsArbschV).

Hazard assessments must be submitted in writing by the Contractor to the Client **no later than 4 weeks prior to work begin** in order to determine compliance with statutory requirements as well as the internal policies of the Client.

For certain types of work, the work procedure (Appendix B III) and the hazard assessments must be explained in greater detail in meetings (also see chapter B.8).

The following items must be at least considered in the hazard assessments:

- Description of the work and the work environment.
- Hazards associated with the work performed.
- Hazards associated with the facility or parts of the facility.
- Hazards associated with tools and working materials.
- Hazards associated with the local environment (for example weather, traffic, terrain, communication and access and, as applicable, tides and surf).
- Determination of protective measures to prevent hazards (in order of priority: technical, organisational, personnel).
- Determination of persons responsible for monitoring work with high hazard potential (for example, hazardous work within the meaning of the German Building Site Regulation (BaustellV) or RAB 10).
- Number of persons involved with performance of the work.
- Reference to existing operating instructions and procedural instructions.
- Determination of the PPE for safe performance of the work.
- Reference to existing emergency plans.

When hazardous materials are used, an additional hazard assessment must be prepared in accordance with the German Hazardous Substances Ordinance (GefstoffV) that addresses at least the following items:

- Hazardous substances used
- Assessment of alternatives
- Activity and exposure to hazardous substances
- Measures for protecting against accident, environmental and health hazards.

The hazard assessment which is to be prepared must assess the hazard potential in the absence of a protective measure, clearly formulate a protective measure and subsequently perform a final hazard potential analysis. The procedures for reviewing hazardous set assessments published by LASI (Commission for Occupational Safety and Safety Engineering of the Federal States) as well as the technical policies for worksites (ASR V3 'Hazard assessment') serve as the basis for the preparation of the hazard assessment.

A.9.2.2. Operating instructions

In accordance with statutory requirements (for example the German Industrial Safety Regulation (BetrSichV), the German Hazardous Substances Ordinance (GefStoffV) and the German Biological Substances Ordinance (BioStoffV)) and respective DGUV requirements, or as the result of hazard assessments, all contractors and their subcontractors must prepare operating instructions for the use of work and operating materials as well as for the handling of hazardous or biological substances. The operating instructions must be written in a language and form that can be understood by all employees. The employees must be trained according to the operating instructions relevant for their work. In addition, the operating instructions must be kept on-site to allow viewing by all employees (for example, directly on the working materials)

Operating instructions for the use of working materials:

For all operating and working materials, including rescue equipment and personal protective equipment, which may present hazards to employees when using or operating, operating instructions must be prepared on the basis of user manuals / user instructions.

Operating instructions for hazardous or biological materials:

For all hazardous or biological materials based on the material safety data sheet or specific hazards of the material.

The material safety data sheet must be kept on-site with the operating instructions.

A.9.2.3. Description of work processes and procedures

All Contractors must provide the Client with a description of the work procedure (also see [Appendix A VIII](#)) for the planned contracted work **no later than 4 weeks prior to beginning plannable work**. Changes to the work procedure must be coordinated with the supervisors of the Client, in particular the coordinator as

specified in DGUV Regulation 1 and the supervisors of the service groups. The contents must play a role in the hazard assessments for the individual types of work.

Descriptions of work and processes must be provided for the following types of work (for example):

- Installation or exchange of large components and complex equipment such as topsite, high voltage transformers, pumps, generators
- Laying of cable on land, in mud flats or undersea as well as installation into converter facilities
- Work over open water and work with falling hazard
- Anchor work
- Diving work
- Work in confined spaces
- Work with hazardous substances
- Work on or near electrical equipment and work on high-voltage equipment
- All work with increased hazard potential (for example as defined in the German Building Site Regulation (BaustellV) / Appendix II or RAB 10) and for which large installation aids are used, for example cranes, helicopters, barges, jacked up barges, winches, lifting and pulling devices, lifting stages, boom lifts, etc.

For individual measures in connection with upkeep and maintenance work on all parts of the facility, installation instructions with hazard assessments may also be used as work and process descriptions. This must be coordinated in advance with the relevant supervisor with the Client and must be approved by the Client.

For certain types of work, the work procedure must be explained in greater detail to the Client in meetings (see [chapter A.9.3](#)).

Notification regarding changes to work processes and procedures must be immediately provided to the Client and the hazard assessments must be revised with respect to the changes.

The description of the work procedure must be submitted to the Client in written form. The description must be compiled into a single document and must contain at least the following items:

- Name and location of the work
- Number of persons and qualifications required for performance of the specific individual types of work
- Description of the work procedure
- Information regarding working and operational materials such as tools, machines or other aids

- Conditions under which the work cannot or may not be performed
- Potential hazards which may arise
- Measures for protection against accident and health hazards in accordance with the hazard assessment
- Reference to inspections and reviews which must be performed in advance
- Emergency plans

For work with restricted scope and without special hazards (for example inspection work, walk-throughs or facility inspections) it is not necessary to prepare descriptions of the work procedure.

A.9.2.4. Noise / emissions

When selecting the work procedure to be used, it must be ensured that all work is performed in compliance with the German Occupational Health & Safety Ordinance on Noise and Vibration (LärmVibrationsArbSchV). The generation of noise must be kept to a minimum. All devices used must be used in a sound-insulated or noise-reduced manner (for example sound-insulated groundwater pumps or power generators kept in housing).

Work that is noise and / or vibration intensive may only be performed with the prior consent of the Client's supervisors, in particular the coordinator as defined in DGUV Regulation 1.

A.9.2.5. Last Minute Risk Assessment (LMRA)

The LMRA is a short assessment that is performed by the employees that will perform the work immediately **prior to the beginning of work**, for example as part of the Toolbox Talks at the worksite. The goal of this is for site employees to be able to identify, to the maximum extent possible, all potential safety health and environmental hazards at the workplace so that any previously unknown or non-existing hazards can be recognised and incidents can be prevented. The focus of the LMRA is 'hazards at the workplace' with direct influences from the surroundings and current conditions. The LMRA serves as a supplement to existing hazard assessments, but not as a replacement.

Performance of the LMRA must be documented, for example in the form of checklists or premade cards. If an LMRA shows that hazards exist with performance of the planned work, the work may only begin after all hazards have been mitigated through suitable measures.

As part of the work permit procedure, the Client issues premade LMRA cards or forms that are to be completed by the Contractor's employees according to the assessment of the situation on-site. After work is completed the documents must be given back to the Client's supervisors. As part of mutual assistance and open dialogue, each employee may speak with another workgroup in order to clarify individual items from the

LMRA.

A.9.3. SHE meetings

Prior to the beginning of work and on a regular basis, the Client may call SHE meetings in which supervisors, in particular the Contractor's work supervisors / foremen / AVO, must participate. As needed the Client may also call SHE meetings in which additional supervisors (including for example members of upper management) from the Contractor must participate (for example after work accidents and increase frequency of unsafe situations / behaviour or near misses).

A.9.3.1. Meetings regarding hazard assessments and work procedures

In order to prepare for work / campaigns, meetings must be held on a regular basis in which the work sequence, the work procedure used, the measures for protection of employees decided and the schedule for this work must be presented and clarified. Moreover, environmentally relevant issues that arise during performance of the work must be discussed.

The meetings are to be scheduled by the Client in consultation with the Contractor and must be performed at least **2 weeks prior to the beginning of work**. In the event of substantial changes to work procedures the parties must coordinate with each other to hold further meetings.

Participants: Supervisors from the Client and the Contractor as well as occupational safety specialists from the Client and SHE officers from the Contractor, as necessary. As necessary additional persons are to be included (for example, OIM).

A.9.3.2. Briefings / pre-work discussions

Organisational and logistical planning for safe and environmentally friendly performance of the work is to be performed in a timely manner prior to beginning work as part of a briefing.

Participants: Supervisors from the Client and the Contractor, as well as others as needed

A.9.3.3. Toolbox Talks

A Toolbox Talk is a short, informal safety discussion.

Toolbox Talks are to be performed **daily before beginning work**. Toolbox Talks should address in particular the hazards specific to the work activity, potential hazards in the work environment and protective measures that must be taken. Environmentally relevant aspects must be considered.

Example topics for a Toolbox Talk.

- Implementation of measures from the work permit (e.g. approvals)
- LRMA
- Safety Check (e.g. PPE)
- Evaluation of environmental and weather conditions
- Agreement on handling of materials and necessary security measures
- Coordination with work performed in parallel and at other facilities (for example transport work)
- Thoughts or suggestions from participants

The work supervisor / foreman must ensure that the Toolbox Talks are held and must document this in the daily report.

Toolbox Talk participants:

Installation Responsible, foremen, OIM if appropriate, coordinators as defined in DGUV Regulation 1, SHE advisors (if present), as well as other persons as needed.

A.9.3.4. Safety Talks

Safety Talks are short safety discussions similar to Toolbox Talks that are held directly with employees by supervisors on-site at the worksite regarding the next work to be performed. In contrast with Toolbox Talks, Safety Talks should focus on safety-relevant behaviour and behaviour-oriented measures. Safety Talks can be integrated with already known Toolbox Talks.

Safety Talks are open discussions in dialogue form that are held on-site by the supervisor directly with the employees working at the facility. In contrast with the traditional classroom teaching style, the meeting should take the form of a moderated discussion in which the employees at the site are motivated to actively collaborate and seek solutions and develop safe patterns of thought and behaviour. The results of the Safety Talks are to be documented and kept on-site. By request, the documented results are to be shown or sent to the Client.

A.10 Inspection of documents

In order to prove that all requirements of workplace safety, and health and environmental protection have been taken into consideration for planning and preparation of the work, and that the SHE requirements and policies of the Client have been met, the following documents must be presented to the Client or submitted by a shared documentation system **no later than 4 weeks prior to the beginning of the planned work:**

- Hazard assessments for the planned work (see [chapter A.9.2.1](#))
- Description of the plant work procedures
- Planned timeline (duration of work, date and time) /
- Nature and scope of the work
- Number of employees to be used
- Certificates of training and instruction for employees
- Emergency plans for work performed at height or work with ships
- Documentation of annual training
- Licenses and certifications, for example for managing or operating machines and devices and for inspection of facilities and operating materials
- Documentation for used for the work (operating instructions, inspection records, certificates).
- Documentation of the hazardous materials used, including material safety data sheets and naming of the employees who have been trained to handle these hazardous materials
- Presentation of legally required driver licences for employees who will drive vehicles in the facilities
- Contact information for contact persons for all employees (emergency contact / next of kin) who can be contacted in the event of an emergency
- Proof of insurance showing that all employees are covered by sufficient accident insurance

The Client Reserves the right to the submitted documents on-site in a random sample manner and to coordinate specific measures if there are any legitimate concerns.

That first appears to be necessary on-site due to unforeseeable conditions (ad hoc work), the work procedures must be determined in writing by the Contractor and risk assessments must be prepared and adapted on-site so that compliance with statutory requirements and safe performance of work is also ensured in these cases. In order to prevent mutual endangerment of personnel and to be able to adequately prepare work permits, sufficient time must exist for safe planning and coordination of the work with other work performed on the site.

The documents and data must be adjusted on-site with the coordinator as defined in DGUV Regulation 1 and approved by the Client's supervisor (for example, the Service Group) and as necessary by the OIM. If it is not possible for the work to be performed safely, it may not be performed.

A.11 Permit-to-Work System (PtW)

Performance of work in offshore areas, as well as hazardous work, for example:

- Work with falling hazard
- Work involving rope techniques
- Work on or near electrical equipment
- Hot work
- All trenches and in confined spaces
- Crane work
- Work with hazardous substances
- Work with shooting devices
- Underwater work
- Civil engineering work

must be approved by the Client through a permit to work (PtW). The purpose of the PtW is to ensure that interfaces with other work are promptly recognised and so that various work projects can be promptly coordinated with each other in order to avoid mutual hazards. Moreover, as part of the PtW, it is determined whether the documents required for performance of the work are present. The forms for the LMRA are also provided with the PtW.

The description and policies of the Client's respectively valid PtW and the requirements of the Client's NAN with the approval forms must be strictly complied with.

A.12 Preventative Occupational Medicine

The Contractor must ensure that only personnel that are eligible and monitored through occupational medical health and eligibility examinations are assigned in areas where work with damaging health effects is performed.

Certificates from occupational medical health and eligibility examinations must be provided to the Client upon request. These certificates for residence and work in offshore areas must be provided or confirmed to the Client without being requested **4 weeks before residence in offshore areas begins**.

A.13 Training

All operational managers (the Client, all contractors and its subcontractors) must train their employees in accordance with § 12 of the German Occupational Safety Act (ArbSchG) regarding occupational safety, health protection and environmental protection, as appropriate for the employee's duties, prior to beginning work. This training must be performed on a regular basis, however at least **once per year**. Particularly at construction sites, the due to continually changing hazards, training must be performed on a monthly basis (for example short training sessions on incidents and resulting measures).

Moreover, repeat sessions and adjustments to the training must be made if there are accidents or changes to work procedures. In accordance with § 8 of the German Occupational Safety Act (ArbSchG), the contractor must confirm in writing to the Client that it has provided training to all assigned persons.

The training sessions are to be led by a supervisor or in the presence of a supervisor with the Contractor.

Briefing of employees regarding facility-specific hazards or policies for accident protection and first aid and emergency plans and facilities of the Client are ensured by supervisors from the Client, in particular by employees of the service group or the coordinator as defined in DGUV Regulation 1.

Since the work and associated risks change, repeated or regular briefings or trainings corresponding to the situation in the Client's facilities must be provided. It must be emphasized that every employee must contribute to minimisation of the risk in these areas. All briefings and training sessions are to be documented. Every employee must carry a safety pass or the like for example the safety pass of the Erdöl- und Erdgasgewinnung e.V. – WEG trade association which all briefings and completed training courses are listed.

B.13.1 Training for work on or near electrical equipment

All persons who work on, with or near electrical equipment must be trained by their direct supervisor or work supervisor regarding applicable safety requirements, safety policies and operational instructions.

B.13.2 Training for the use of personal protective equipment (PPE)

Each Contractor must provide its personnel with suitable PPE that is necessary for their work. It must ensure that its personnel know how to use various PPE, is trained in its use and uses and cares for the PPE. Training on PPE that protects against fatal hazards is to be supplemented with suitable practical exercises. In accordance with § 3(2) of the German Ordinance on the Use of Personal Protective Equipment, the Contractor must keep all user instructions and convey these two employees as part of training (as applicable

through practical exercises).

It must be ensured that for the PPE used, the applicable requirements and statutory provisions regarding maintenance, inspections and duration of use are complied with. Corresponding certificates must be kept and presented to Client managers by request

B.13.3 Training on the handling of hazardous substances

In accordance with § 14 of the Hazardous Materials Act (GefStoffV), each operational manager is obligated to train its employees regarding hazardous substances as part of planned work with hazardous substances or work in which hazardous substances could be uncontrollably released. Training is to be performed on the basis of user instructions and must provide employees with information regarding the specific hazards that are associated with their work activities, depending on their specific work location.

The statutory requirements and waste management plan regarding the disposal of hazardous substances or working materials that are contaminated with hazardous substances must be observed.

B.13.4 Laser safety training

If work is performed on communications and secondary technical equipment with optical transmission of information the work supervisor must ensure that employees are trained prior to beginning work regarding the potential hazards that can arise during work on the laser equipment.

B.13.5 Certificate for work on SF6 equipment

On the basis of EC Regulation No. 842/2006 and 305/2008 as supplements to Article 5 of 842/2006, as well as the German Chemicals Climate Protection ordinance, from July 2009 personnel that recover SF6 (sulphur hexafluoride) from high-voltage switchgear equipment must be certified (evidence of technical expertise).

If work is performed for which such evidence of technical expertise must be present, such a certificate must be presented together with the other qualification certificates **prior to beginning work**.

B.13.6 Certificate for work on fixed equipment with refrigerant

The installation, maintenance of fixed equipment that contains refrigerant as defined in Annex I of the F-Gas Regulation (EC 842/2006) or mixtures thereof may only be performed by certified companies. The corresponding certificate must be presented to the Client with the other evidence of qualification **prior to**

beginning work.

B.13.7 Specialised knowledge for the installation of anchors for personal fall protection equipment (PFPE)

The work supervisor for the installation of anchors for PFPE must have completed training as specified in DGUV-G 312-906 (selection, training and certification of PFPE specialists) or have been trained by the manufacturer of the anchor equipment. Proof must be provided to the Client **prior to beginning work.**

The work supervisor must be present when anchors are installed.

A.14 Hazardous substances

The Contractor shall ensure that it completely observes and complies with the German Hazardous Substances Ordinance (GefStoffV). This applies particularly to hazardous substance determination, hazardous material storage, review of alternatives, occupational preventative medical care, restrictions of employment and training on the basis of workplace-specific operating instructions

For all working materials and hazardous substances as well as devices/products that contain such, the Contractor must electronically send a current EC safety data sheet in accordance with EC Regulations 1907/2006 and 2015/830, including [TN: term missing from source] in the German language, in a timely manner prior to delivery to the worksite / receiving point. A safety data sheet is considered to be current if it was created no earlier than 01 June 2017. For older safety data sheets compliance with the aforementioned regulations must be proven.

On the basis of the EC safety data sheet, the specified mode of handling and the conditions suitable for storage and use, hazard assessments must be performed and operational instructions must be prepared.

The use of carcinogenic, reproductively harmful or DNA-altering substances must be avoided. If deviations from this are necessary, the Client must be informed in writing prior to delivery to place of use. Protective measures resulting from this must be coordinated by mutual agreement. At the request of the competent oversight authority, the Contractor must share all requested information in accordance with the German Hazardous Substances Ordinance.

When handling hazardous substances, the following points in particular must be observed:

- Possibilities for substitution of hazardous substances must be given priority
- Restrictions on manufacturing and use pursuant to § 18 of the German Hazardous Substances Ordinance must be observed
- Keeping of a hazardous substance register that meets legal requirements, with reference to the associated safety data sheets including the waste codes to be used in accordance with the German Waste Catalogue Ordinance (AVV).
- Discovery of substance properties and risks as well as a risk assessment (also see [chapter A.9.2.1](#))
- Instruction and training of relevant employees in accordance with § 14 of the German Hazardous Substances Ordinance (GefStoffV) (also see [chapter B.13.3](#))
- Operating instructions derived from the hazard assessments are to be prepared
- The Contractor must familiarise itself with the possible type, quantity and characteristics of the storage location for hazardous materials within the Client's facilities. If existing storage capacities are not sufficient for the materials required by the Contractor, capacity must either be created (e.g. hazardous material containers) or small quantities are to be sent as work and consumption of the materials progresses.

Storage and warehousing of hazardous substances

Hazardous substances may only be stored at the worksite in quantities that are required for daily use. At the end of work, all hazardous materials are to be stored in a safety cabinet for hazardous materials, container or hazardous materials warehouse so that they cannot endanger the health of employees and the environment. Waste and residues must be properly disposed of. The stored quantities within the Client's facilities must be reduced to the required minimum.

A.15 Personal protective equipment (PPE)

All facility operators (Client, all contractors and their subcontractors) must provide their employees with suitable and inspected PPE (also see [B.5](#)). The type and extent of the PPE is derived as a result of the hazard assessments for the specific work planned (section [A.9.2.1](#) and [B.3](#)). Provision and use must take place in accordance with the German PPE Ordinance (PSA-BV).

In general, at least the following PPE must be worn in the facilities of the Client:

- Protective helmet
- Safety shoes (S3 ankle-high)
- Warning vest or signal-coloured clothing (on construction sites with traffic or crane operations or generally in offshore areas)

Protective glasses and hearing protection must be carried. In some facilities, wearing of protective glasses

may be required. For the performance of mechanical or electrical work, clothes are to be worn that cover the arms legs and entire body.

Persons who fail to comply may be removed from the facility.

In the facilities of the Client, the Client may, in consultation with the Client's occupational safety specialist, establish PPE-free zones.

It must be ensured that the PPE is used in accordance with existing requirements regarding wearable and usable lifetime. It must be inspected for its proper condition at regular intervals as specified by law / by the manufacturer and any defects found must be immediately reported to the supervisor. Prior to each use, the wearer must perform a visual inspection for obvious defects.

A.15.1. Work helmet

Wearing of helmets is required in general for all work. Exceptions may only be made for work in closed spaces, in which wearing of helmets can be determined to be unnecessary according to a hazard assessment of the respective Client (other exceptions can be made for PPE-free zones). For work in areas with the potential for falling objects or blowing away of the helmet, the chin strap must be closed. For protection against the cold, only the helmet stocking caps provided for this purpose may be worn. Protective helmets must be labelled with the name of the user and his company.

A.15.2. Safety shoes

In all facilities of the Client, suitable safety shoes or safety boots must be worn (at least S3, ankle-high or higher).

A.15.3. Hearing protection

Hearing protection must be provided by the employer for all work involving noise emission greater than 80 dB (A). For noise emission greater than 85 dB (A) or if there is corresponding signage, hearing protection must be worn by the Contractor ([Chapter A.16.4](#))

A.15.4. Protective glasses

In facilities of the Client, these must be carried by the employee and worn for work for which there is the risk of injury to the eyes (even if the employee is not performing the work himself). The type of protective glasses is to be determined by the respective employer in a hazard assessment for the respective work.

A.15.5. Weather protective clothing

Depending on the adverse weather, suitable weather protective clothing must be provided by the respective operator for its employees and must be worn by the employee. Even individual independent contractors and other contractors not described herein are subject to this requirement.

A.15.6. PPE for fall protection (PFPE)

If it is not possible to set up technical fall protection, for work with a fall height greater than 1 m in height, for cherry picker work and for planned work less than 2 m from a precipice and for fall heights > 2m, suitable PFPE must be worn. Suitable anchor points must be used if PFPE is used. For all work in and on our facilities using cherry pickers, PFPE must generally be used.

For work with falling hazard, employees must pass an occupational medical examination (G41).

A.15.7. Warning vest

On Client facilities with construction site traffic or crane work, warning vests or signal-coloured clothing must be worn (in accordance with EN ISO 20471). For work in which warning vests present a hazard, for example work with rotating parts, alternative protective measures must be ensured.

A.15.8. Respiratory protection

If work with strong development of smoke and dust is performed, suitable filter masks must be worn in accordance with hazard assessments. For the use of respiratory protective equipment that does not depend on recirculated air (for example for work in containers or for blasting or coating work) and for self-contained breathing apparatus, depending on load weight and breathing resistance, occupational medical care in accordance with G 26. 1-3 is necessary (see DGUF Regulation 112-190). For the use of compressed air breathing devices, proof must be provided showing participation in an equipment carrier training course.

A.15.9. Work gloves / protective gloves

Work gloves or protective gloves with a suitable design must be worn depending on the type of work (See hazard assessment) for example for certain mechanical work as well as when handling hazardous substances or as protection against weather influences.

A.15.10. Other PPE for working in offshore areas

PPE for work in offshore areas such as survival suits and rescue vests are described in [chapter B.5](#).

A.16 Behaviour and rules at Client facilities

A.16.1. Alcohol and drugs

The consumption, possession, transport, acquisition or sale of alcohol and / or drugs is strictly forbidden in all of the Client's facilities (even residual alcohol will not be tolerated). Consumption is forbidden for all persons in offshore areas on all means of transport and on the platform, around-the-clock and for all persons, even during breaks and rest periods.

However, if justified suspicion exists that a person is under the influence of alcohol or drugs, the general supervisor and the employee's direct supervisor must be informed of this immediately. The affected person must stop work.

As part of its duty of care, the respective contractor must ensure that the affected person is accommodated or safely returned home. Any drug or alcohol caused abnormalities are to be documented.

The Client reserves the right to ban any persons from the premises who consume alcohol or drugs while working at facilities of the Client.

A.16.2. General rules of behaviour

- When using stairs and stepladders, one hand must always be kept on the handrail.
- Leaning over any rails or railings is prohibited.
- Escape routes and other walkways must always be kept free of obstructions.
- Work areas, sleeping areas and social rooms must always be kept clean and organised.
- Eating and drinking is prohibited in work areas of the operating facilities - general hygiene rules apply.
- Signs describing mandatory and prohibited behaviour must be followed.
- No work is to be performed unless instructed.
- The disposal of waste may only take place using the provided containers.
- Use of a ladder as an elevated work is only permitted for limited activities. Specific safety measures are derived from the hazard assessment for the respective activity, such as for example securing of the ladder to a fixed object, belaying by a second person and the use of fall protection equipment (PPE). It should generally always be checked whether for example a cherry picker or scaffolding could be used.
- Bridging steps / exit steps for cherry picker stages are generally prohibited (DGUV notice 208-019 / BGI 720 'Sicherer Umgang mit fahrbaren Hubarbeitsbühnen_2013'. In justified exceptional situations, a bridging step is safer than other safety measures. If bridging steps are unavoidable, then the instructions on the topic provided by the professional organisation D-A-CH-S must be followed (available on the internet at no cost).
- On ships, the following principle applies: One hand for yourself, one hand for the ship.
- On floating units and on platforms and construction sites, running is not allowed.
- Reporting of unsafe conditions and incidents.
- Do not walk backwards on scaffolding or when carrying loads
- Do not lean out of open windows

All hatches which may be closed by hand for which no further protection against falling in is installed must always be shut after climbing through (e.g. access to crane platforms or climbing through scaffolding layers)

A.16.3. Tidiness, cleanliness and hygiene

The Contractor is required to keep the storage and workspaces it uses clean. If in spite of requests to remedy the situation, the Contractor does not fulfil this requirement, the Client may perform this work or cause this work to be performed at the expense of the Contractor.

Rubbish must be properly and promptly (by the end of the work day) stored or disposed of.

The Contractor is required to leave the facility in a clean and tidy condition after work is completed.

Prior to starting work, employees must be instructed regarding behaviour in the event of viral illnesses.

When handling faecal matter and wastewater, in addition to general hygiene requirements, the requirements of the German Biological Substances Ordinance (BiostoffV) must be met. Cleaning work on surfaces that have been contaminated with wastewater on a large scale must be performed by a certified specialist cleaning company. Performance of proper cleaning is to be confirmed by a state-recognised disinfectant (to be proven with a microbial colony count).

Food may only be received in areas in which general hygiene requirements are met (e.g. washing and disinfection equipment and materials are available) and no hazard of food contamination by hazardous, biological or other foreign substances exists.

The following activities are prohibited in work areas:

- consumption of food or drink (hazard of contamination by microorganisms or foreign objects such as glass or plastic).
- smoking or snuffing (toxic hazard and odour).
- handling of medication (hazard of contamination with active ingredients).
- storage of private materials (hazard of contamination with microorganisms and foreign objects)

A.16.4. Noise

In areas where noise levels of 80 dB (A) are regularly exceeded, hearing protection must be made available to all persons (employees, visitors, etc.) and kept in an easily accessible manner. For noise emissions greater than 85 dB (A), a warning sign must be posted and all persons in the area must wear suitable hearing protection in this area.

Moreover, all work for which it is anticipated that the assessment level of 85 dB(A) will be exceeded must be reported by the work supervisor to the coordinator as defined in DGUV Regulation 1, to the health and safety coordinator (SiGeKo) and / or to the Client's occupational safety specialist.

Work in noise areas requires health suitability, which must be proven by an occupational health screening (in accordance with G 20).

A.16.5. Fire and explosion protection / hot work

For all hot work, the Contractor is required to comply with all local, organisational and technical fire and explosion protective measures. For this purpose, the Contractor must coordinate with the Client regarding the fire and explosion protective measures necessary for his work area.

The work may only be performed after issuance of a permit to work / permit to perform hot work.

A.16.6. Fire

The respective facility-specific emergency and alarm plan applies to cases of fire. After the emergency apparatus is notified, every fire must be reported to the supervisor of the Client or to the MOC.

A.16.7. Use of machines, technical working materials and vehicles / operation or commissioning of facilities

Only machines, technical working materials, vehicles and facilities in proper working condition may be used or operated, subject to inspections based on manufacturer information and the German Industrial Safety Regulation. Corresponding proof of inspections and device maintenance performed immediately **before construction begins** must be presented to the Client by request prior to transport. The Client reserves the right to perform a visual check of the machines used, technical working materials, vehicles and facilities prior to the beginning of work.

Moreover, a device catalogue specific to the work order and facility must be sent in written form to the Client **4 weeks before work begins** and must be kept on site.

Machines, technical working materials, vehicles and facilities must be used or placed into operation in accordance with the Product Safety Act (ProdSG) and the Machine Ordinance with instructions on installation, operation, and use, an EC compliance declaration (type examination) and a CE label (this applies in particular to first commissioning). It is preferable that working materials with GS are used. If an inspection mark is not issued, then compliance with the above requirements must be verified by the Contractor.

The Contractor must ensure that machines, technical work equipment, vehicles and facilities are only operated by trained and authorised persons and that for operation corresponding user instructions and operating instructions are present. If written assignment is required by law, then the assigned person must always carry this with them.

A.16.8. Fixtures and use of scaffolding

All scaffolding must be quickly inspected for obvious defects and it must be verified that the respective scaffold is approved for use (release note). The assembly and use of the scaffolding must take place in accordance with the Technical Rule for Operational Safety TRBS 2121; Part 1 (Personal falling hazards - preparation and use of scaffolds) and DGUV I 201-011 (User instructions for handling work and protective scaffolds).

A.16.9. Work with stripping and cutter tools

No work may be performed with stripping or cutter tools that have an unprotected / fixed blade. The blades must be closed or otherwise protected after use.

A.16.10. Excavation work

Prior to any excavation work, cables and pipe plans must be viewed and all relevant information regarding hazards that may arise from the subsoil must be obtained (e.g. inspection for munitions in bomb-drop areas or review of the list of contaminated sites). Construction pits and cable trenches must have sloped walls and be secured and supported against collapse (e.g. in accordance with DGUV Regulation 38 Construction Work, previously BGV C22 and DIN 4124 Excavations and Trenches).

Unplanned excavation of pits and trenches and driving of stakes and metal bars requires the prior consent of a Client manager.

A.16.11. Holes, shafts, container and pit openings

Holes, shafts, container and pit openings must be secured against collapse.

Employees must be informed regarding existing hazard points in the daily workday meetings. Work in holes, shafts, container and pit openings must be approved through the valid PtW procedure.

Before climbing into one of the aforementioned openings, it must be ensured that safe access is ensured, rescue materials and devices including trained rescuers and a non-hazardous atmosphere are present (release measurements). In the hazard assessment, which must be prepared in advance, as a safety measure it must be ensured that at least one flagman, and for work in containers, a suitable isolating transformer is available for a safe power supply.

Traffic routes and material storage areas, depending on floor characteristics, must be located a safe distance from holes, shafts, container and pit openings.

Hazards due to low oxygen can exist in confined or closed or partially closed areas without sufficient ventilation if the oxygen concentration is lower than the oxygen content of natural air of 20.9% by volume. If the oxygen concentration is lower than 20.9% by volume, then the cause of this must be determined and an assessment must be performed to determine whether a hazard due to foreign gases or hazardous substances exists.

For holes, shafts, container and pit openings, suitable organisational measures for the protection of employees must be established, for example:

- Performance and documentation of hazard assessments
- Preparation of operational instructions from the hazard assessments
- Written approval, for example through an access and drive-through permit
- Instruction of personnel based on the hazard assessments
- Designation of supervising persons and safety positions
- The specified rescue measures must be practiced by the persons provided for the rescue (pursuant to DGUV Rule 113-004 or previously BGR 117-1) and kept in the hazard assessment or in consultation with the respectively responsible rescue coordination centre
- Documentation of existing holes, shafts, container and pit openings
- Notice to employees regarding corresponding openings

Moreover, suitable and work-ready protective and rescue gear must be kept, for example:

- Measurement devices for determining the oxygen content and other hazardous gases in the surrounding air,
- Breathing protection devices
- Safety and rescue harnesses
- Rescue lifting device
- Explosion-proof torch / flashlight
- Crane work, load-carrying equipment and hoists
- Tripod

A.16.12. Weapons and unexploded ordnance (UXO)

Whether at worksites on land or at sea, including the 12-SM-Zone and the EEZ, the risk that abandoned ordnance (UXO) such as undetonated weapons, unexploded bombs, shells, grenades, bombs, etc. are present must be considered.

As necessary, the Client or subcontractors (depending on the contractual situation) hire(s) suitable specialist companies in order to perform the munitions clean-up measures. The basic the goal of this work is to minimise the remaining risk presented by munitions to a level that is low enough to be reasonable.

The candidate specialist company must have a permit in accordance with §7 of the German Explosives Act (SprengG) in order to search for, identify and clean up weapons and ordnance. Moreover, they must prove that their personnel hold permits in accordance with §20 of the German Explosives Act (SprengG).

The 'Working Guide on Explosive Ordnance Clearance (construction technical guidelines for economical detection, planning and clean-up of weapons and ordnance on federal territory)' of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMUB) in its newest version must be observed. Deviations from this must be justified in writing. The aforementioned 'Working Guide on Explosive Ordnance Clearance' is freely available on the internet.

A.16.13. Crane work

In addition to statutory requirements, the following documents must be present in writing (original or copy) in the Client's facilities at the worksite.

- Required regularly occurring inspections must be performed and documented in the crane's inspection logbook.

Crane operators:

- Proof of training / crane operator permit
- Awarding of contract to the company for operating the crane
- Aptitude test in accordance with G 25 'Driving, Operating and Monitoring Activities'

General code of conduct for crane work:

- The crane operator must have visual contact with the load and on the slinger. An additional guide must be used if the crane operator does not have visual contact with the load and slinger. Pre-determined hand gestures and radio communication are used to allow mutual understanding between parties.
- In coordination with the supervisor and the health and safety officer (SiGeKo) as necessary or by request of the Client a lifting plan must be prepared. For this purpose, the conditions at the site must be reviewed in advance together with the Client.

The contents of the lifting plan comprise:

1. Description of work.
 2. Information regarding subterranean lines, subsoil characteristics and above-ground obstacles.
 3. Position of the crane.
 4. Shutdown of the work due to weather conditions.
 5. Technical data, safety equipment, crane capacity dependent on radius, length of the outrigger, free running, ...
 6. Lifting tackle
 7. Description of the load such as: Mass, centre of gravity, dimensions, attachment points, traverses.
 8. Description of supports Measurements, forces, ...
 9. Lifting instructions for the load, if available.
 10. Overview of weight distribution for lifting from the horizontal and vertical perspective and from the opposite direction.
 11. Side view of crane positioning with load.
 12. Top view of crane positioning with load.
 13. Initial and final positions of the load.
 14. Strap plan and indication of connection points with lifting devices, lifting points and centres of gravity.
- Remaining under suspended loads is prohibited.
 - All persons on site must be informed regarding potential hazard by crane activities.
 - Spacing in accordance with DIN VDE 0105-100 and DGUV Regulation 38 (previously BGV C22) from high-voltage components must be observed in all cases, taking into consideration the swinging range and outward swinging of loads and lines.
 - Before beginning crane work, current and expected weather conditions must be taken into consideration in the hazard assessment.
 - If it is decided to deviate from DGUV Information Sheet 209-013 (Slinger, previously BGI 556), at least equivalent safety must be ensured.
 - Holding lines must be used. In coordination with the crane operator and the work supervisor, use of these can be waived.

A.16.13.1. Transport of persons with cranes

If work is performed in Germany and if persons are transported with a crane during performance of the work this must be reported in advance to the appropriate BG. (Reporting of transport of persons with an approved personal carrier in accordance with DGUV Regulation 52)

Persons in personal carriers must wear suitable PFPE and affix these to appropriate connecting points in the personal carrier.

A.16.13.2. Load-bearing equipment and hoists

So that all loads can be safely lifted, moved and placed back down again, only undamaged, suitable and inspected load-bearing equipment and hoists may be used. All load-bearing equipment must have a permanently affixed and clearly recognisable label.

The specific requirements regarding the characteristics, labelling, inspections and operation of load-bearing equipment and hoists are derived from the following directives, regulations and rules as well as the operating instructions of the manufacturer:

- Machine Directive, Annex I, Section 4
- DGUV Regulation 52 (Cranes, previously BGV D6)
- DGUV-Regulation 100-500 (Operation of work equipment, previously BGR 500), Section 2.8 (Operation of work equipment, load-bearing equipment in hoisting operation)
- DGUV-Regulation 101-005 (Hoistable means of personal transport, previously BGR 159)
- DGUV-Regulation 109-005 (Use of wire cable slings, previously BGR 151)
- DGUV-Regulation 109-006 (Use of fibre rope slings, previously BGR 152)

A.16.14. Work on higher work areas and work with falling hazard

In general, all work with falling hazard must be avoided through the use of technical fall protection (TOP). If the work cannot be avoided through the use of technical measures such as railings, then suitable organisational and / or personal fall protection measures must be taken and specified in the hazard assessments. In so doing, the Contractor must consider in a detailed manner the risks of employees when working on or en route to elevated work areas, as well as the risks due to weather conditions and falling equipment.

Work areas elevated more than 1.00 m must have suitable measures for protection against falling in addition to suitable footing and standing stability. This also includes work areas over water or other materials into which one could sink.

Above a fall height of 1 m, scaffolding must be provided with technical fall protection, for example a three-piece guardrail.

Above 1 m fall height, technical equipment to protect against fall hazards has priority over the use of PFPE. If PFPE is used, suitable rescue equipment (height rescue, etc.) must be kept on site. Use of such

equipment must be trained regularly. The frequency of training is to be determined in the hazard assessment.

Use of ladders as elevated work space must be reduced to the minimum level possible. Alternative technical solutions must always be inspected. The ladder must always be secured by technical means or by a second person.

The following minimum requirements must generally be observed:

- Side protection or railings and fixed barriers may only be omitted if they are not possible for technical work reasons, and catch equipment such as catch platforms, roof catch platforms, catch nets and protective walls must be present. Only when catch equipment is impractical may PFPE be used. PFPE must also be used if weather conditions also require this or if work with a small extent is performed on ladders or manhole steps are used.
- For access ways to elevated work areas via steps, stepladders, pedestals, stages and catwalks, beyond 1.00 m falling height measures must be taken against falling hazards. The height of the handrails / railings of a staircase above the exposed edge of all levels of a flight of stairs must be 1.00 m and at least 1.10 m above the level of the head landing. A railing consists of a handrail, knee bar and foot bar.
- Each staircase with more than four steps must be equipped with a railing.
- Pedestals, stages, ladders etc. must be firmly placed on a safe surface and secured.
- Freestanding ladders must be firmly and securely placed at an angle of between 65 and 75 degrees to the floor below and also be secured against slipping and tipping at the upper contact point. The latter must extend at least 1 m above the upper level to be reached if no other suitable handholds are present.
- When climbing ladders and scaffolding, both hands must be used. Carrying devices or tools in one hand is not permitted.
- Areas beneath work performed at height must be secured to prevent access and made clearly visible to other employees.
- Work with falling hazard must be performed in groups of two persons and must also be accompanied by another person who is not located at height who continually monitors the work and is in constant contact with both the employees working at height as well as the work supervisor (ALV).
- Persons under the age of 18 and / or less than 12 months of experience with working at height should only perform this work if they are accompanied by an experienced person and are at the very least continually monitored by this person.
- Work with falling hazard should only be performed during daylight hours. During twilight and / or darkness, a special hazard assessment must be prepared, and appropriate measures must be taken. At the very least, full and permanent illumination of the work area must be ensured.

A.16.15. The following must also be observed for work with falling hazard into open water

For work with falling hazard, the general statutory provisions of BaustellV Annex II and DGUV-V1 § 8 apply.

In addition, in offshore areas an emergency rescue response vessel must be used for work with hazard of falling into water, in particular during the assembly of scaffolding and as industrial climbers perform their work.

An emergency rescue response vessel can be waived for work outside of the platform structure if the scaffolding has been properly manufactured by a scaffolding manufacturer, has been approved and is inspected for damage by means of a walk-through by an authorised person. The selection of PPE is at the discretion of the company performing the work and is determined by the hazard assessment. A hazard assessment is to be prepared for the scaffolding itself in which inspection deadlines are determined, and users are to be instructed accordingly. A flotation device suitable for the event that a person falls into the water must always be worn.

In addition:

- At least one rescue ring must be kept on hand in an immediately accessible location in the working area.
- Work with falling hazard or over water should only be performed during daylight hours.
- If work with falling hazard is performed over a floating surface, movements caused by waves and sea disturbances must be taken into consideration and a special hazard assessment must be prepared.

A.16.16. Safe handling of drivable hoisting stages

If work is performed by contract with the Client, in addition to statutory regulations at least the following requirements apply:

- In the hoisting basket, suitable catching systems against falling must be used in accordance with requirements.
- Climb overs from aerial work platforms to another work area at a higher elevation are prohibited. In justified exceptional situations, a climb over may be permitted from the basket if the same safety level as with other means can be ensured and other technical solutions cannot be implemented.
- Areas beneath swinging hoisting stage work platforms must be secured against unauthorised access.
- The standing area on the working stage may not be elevated by using crates or stepladders.
- Do not lean out from the working stage.
- Ensure that in the driving route on the stage there are no obstacles, soft soils or holes.
- Tools and equipment must be secured so that they do not fall.
- No objects may be used to disengage the excess load switch.
- For work near live electrical lines or equipment, the following must be observed:

- Information and approval from the grid operator or owner must be obtained.
- Electrical lines and equipment must be isolated from live components (observe the five safety rules).
- Safe distance must be kept from live electrical lines (for unknown voltage at least 5 m).
- The aerial work platform must be grounded

Operators must

- be physically and mentally fit and be over the age of 18 years.
- provide proof of education / training of operating personnel
- provide proof of suitability investigations (for work in Germany in accordance with G 25 'Driving and control monitoring activities').
- be ordered to perform the work by the facility operator.
- observe the setup and operating instructions of the manufacturer.
- ensure that the work platform is stable.
- when setting up scissor lifts on unconsolidated ground, preferably ensure that scissor lifts are used with crawler tracks (if this is not done, then this must be addressed and justified in the hazard assessment)

A.17 Transport of hazardous goods, hazardous materials and other goods

Each person involved must ensure compliance with the legal requirements for hazardous goods (road, rail, sea and air transport) in their area of responsibility. This includes contracting for shipment, packing, loading, labelling, securing, transport and issuance of accompanying documents. All persons involved in the process, for example contracted and included persons, must be trained and instructed in the requirements of the applicable hazardous goods regulations.

A.18 Occupational safety at the Client's electrical facilities

A.18.1. Access to the Client's closed electrical facilities

The Contractor, through its personnel, is responsible for compliance with the respectively valid statutory and operational rules and requirements in the 'Grid Technical Handbook' (THN) for our company, in particular the chapter 'Grid control and working on the grid (NAN)' of which relevant parts are made available to the contractor. Moreover, the rules and requirements of social liability insurance providers must be observed, in particular DGUV Regulation 3 (Electrical Systems and Equipment) in connection with DIN VDE 0105-100 – Operation of electrical systems, as well as other relevant rules and requirements pertaining to electrical work.

The Client's electrical facilities may not be accessed without the prior consent of the Client. The facility must always remain under lock and key, and this is in particular to be observed upon handover of keys to the Contractor (NAN form UW2).

Individual access to locked electrical facilities may only be permitted by an electrician (EF) or person trained in electrical matters (EUP). Electrotechnical laymen may only be granted access if accompanied by an electrician (EF) or person trained in electrical matters (EUF).

All persons who are supposed to have access to the Client's electrical facility must be briefed on required conduct and hazardous areas on site (see [chapter A.18.2](#)). Briefing and special rules as well as key handover must be documented.

When entering or leaving an electrical facility, the local specific requirements for signing in and signing out, as well as for object protection, must be observed. In addition, an entry into the station book must be made.

Persons with active or passive medical implants (e.g. pacemakers) must notify the Client's facility manager prior to beginning work. For precautionary reasons, such persons are prohibited from accessing the Client's electrical facilities. Exceptions are decided in individual cases.

A.18.2. Work near electrical equipment

For protection by means of protective devices, coverings, enclosure or isolating covers, work may only be performed by electricians, those trained in electrical work, or electrotechnical laymen. Section 6.4.2.4 of DIN VDE-100 0105 lays out specific details.

Work on, with or near an electrical facility with open active components may only be performed by an electrician (EF) or person trained in electrical work (EUP) if the safety distances specified in table 102 DIN VDE 0105-100 are observed, the five safety rules are applied, or the work is performed according to DIN VDE 0105-100 section 6.3 (live-line work). Electrotechnical laymen may only perform work near an electrical

facility with open live parts if they comply with the safety distances specified in Table 103 DIN VDE 0105-100. For monitoring or inspection by an electrician from the facility operator, the safety distances found in Table 102 DIN VDE 0105-100 may be used. The Contractor's work supervisor is required to obtain a briefing from the Client's foreman in his work area and call attention to special hazards. TWork may only take place in the presence of the work supervisor (AV). As necessary, the responsibility can be transferred in part to other persons (only in consultation with the work supervisor). Switching operations may only be performed by electricians with switch authorisation.

The boundaries of the work area are set by the Client's personnel. The boundaries of the area must be labelled. Outside of these boundaries, no work may be performed and no preparations for work may be made. The labelling of the work area may only be modified by the Client's personnel.

A.18.3. Availability permit (VE)

For work on electrical facilities whose disconnected condition is necessary in order to avoid electrical hazards, an availability permit (VE) is required. If isolation is required for the performance of work on the grid connection system (NAS) equipment, the internal policies of the Client that are described in the NAN apply to the hiring / registration and processing of the availability permit (VE).

The availability permit (VE) represents a permission to be able to independently make a precisely described isolation area available for a certain purpose. Issuance and return of the availability permit (VE) are performed through the office looking to hire for the isolation. At the control centre issuing the availability permit (VE), information regarding an overview (grid diagram) of the isolation status of the isolation area must exist. The availability permit (VE) is generally issued directly to the availability permit-authorized person for the planned work.

Receipt of the availability permit (VE) should occur at the workplace. The availability permit (VE) recipient must generally personally return the availability permit (VE). Deviations from this must be agreed with the switching line, for example a subsequent service provider can return an availability permit (VE) issued to its predecessor to the switching management.

A manager must be reachable by the switching management as part of the agreed stand-by supply.

A.18.4. Electromagnetic fields

For work in or on electrical facilities, the policies of DGUV V15 Electromagnetic fields must be observed.

A.19 Environmental protection

A.19.1. Water and soil resource protection

The introduction or discharge of pollutants, residues or waste into the environment is prohibited.

Wastewater from purification processes must be captured and properly disposed of by the Contractor in its own name in the operational phases. In the event of any infringements, the Client reserves the right to replace the soil at the expense of the party at fault. In the operational phase, the corresponding contractual requirements must be observed.

Moreover, the following must be observed:

- Use of 'excavator mats' as protection from soil compaction.
- If possible, only construction vehicles with low weight (low wheel loads) should be used in order to reduce pressure on the soil.
- If possible, vehicles with a large loading area and small contact area pressure (wide tires, dual tires, chains, etc.) should be used on the subsoil.
- If soil is removed, not only the topsoil but also the subsoil should be removed to a corresponding depth. Topsoils and subsoils as well as soil material of varying quality should be separately removed according to the layer structure and stored accordingly.

When storing and handling materials and devices that have the potential to contaminate a water resource or otherwise detrimentally change a water resource, the statutory and regulatory requirements regarding soil and water resource protection (in particular the German Water Resources Act (WHG – 'duty of care principle'), the German Ordinance on Facilities for Handling Substances Hazardous to Water (AwSV) and in offshore areas the International Convention for the Protection of the Marine Environment (MARPOL) must be observed. For offshore areas, the requirements of Part B of the Client's SHE requirements must be observed.

Special care must be taken to prevent the release of substances. Operational instructions regarding the handling of water pollutants and for refuelling (also see Section [B.27](#)) must be prepared and observed. Containers with water pollutants (for example hydraulic devices, water pumps, etc.) must be provided with catch basins for collecting storm water. In addition, suitable binding agent must be kept on site.

Handling of water pollutants must be reported to the respective environmental consulting firm, the SHE

officers or the like and the environmental protection manager for the Contractor and the Client.

Moreover, among other things the following is necessary:

- Rapidly decomposing hydraulics / motors / transmission oils and biofuels must be used. If this is not technically feasible, written justification must be provided to the Client for permitting.
- Application test according to ISO 15380 'Lubricants, industrial oils and related products (class L) – Family H (Hydraulic systems) - Specifications for categories HETG, HEPG, HEES and HEPR (ISO 15380:2011).

A.19.2. Waste management

Waste generated in Germany must be forwarded to a legally compliant professional waste management service.

In the Client's facilities, each Contractor must comply with the Client's waste management plan. For work outside of the Client's facilities, the Contractor must coordinate corresponding policies and plans for waste management and waste handling with the Client before work begins.

Depending on the contractual or other written agreement with the Client, the Contractor must act as a waste generator and store and dispose of any waste or waste materials it generates or acquires in its own name and at its own expense in accordance with waste disposal laws and must also pass recyclable materials to a recycling service. Ownership, risk and responsibility under waste disposal law go to the Contractor at the time that the waste is accumulated, with the exception of deviating written agreements.

All necessary documents must be presented to the Client as early as possible and **no later than 4 weeks prior to the beginning of work.**

These documents include:

- all necessary approvals,
- if necessary the waste generator number
- the complete planned pathway for the specific waste types, with required current certificates and documents, (including information regarding the AVV (German List of Waste Ordinance) number), up until the end of ownership of the waste,
- the respective waste disposal procedure and
- the required waste containers.

The Client reserves the right to object.

Orders anticipated to generate a volume of 1 m³ or less of **non-hazardous waste** are exempt from the requirement to send documents.

The Client furthermore reserves the right to review the data and to perform checks on a random sample basis.

The documents for proof of professional transport and disposal must be sent to the Client unsolicited. The deadline for submission of these documents, except in the case of shorter contractual arrangements, is within three working days for hazardous waste and monthly for non-hazardous waste.

The Contractor and all of its subcontractors must ensure smooth and legally compliant waste disposal. **Prior to the beginning of their work**, they must inform themselves regarding the existing waste management and comply with it. If changes are made to the submitted documents or changes are anticipated (for example, necessary change of disposal company, new waste Management facility certificate, new waste type), the Client must be notified immediately and the documents must be provided to the Client for inspection unsolicited.

If problems are anticipated that will jeopardise legally compliant waste handling or professional disposal, the Client's BBAbf must be notified. If problems or incidents occur, the MOC must be notified in accordance with Chapter A.8, and the BBAbf of the Client must also be notified.

A.19.3. Emissions

Emissions are defined as particulates, heat, light, noise, vibrations and waste gas. At each facility, potential emissions are to be determined in advance and protective measures for avoidance and reduction are to be introduced. The permitting requirements of the Federal Pollution Control Act (BlmSchG) must be strictly observed.

A.20 Final provisions

Violations of the Client's SHE requirements (Part A and Part B) or the applicable occupational safety, health and environmental protection requirements, in particular against occupational safety orders given in the event of imminent danger, against those authorised by the Client to immediately introduce appropriate protective and preventive measures, for example suspension of work. Depending on the severity of the violations or for a repeat violation, the Client can impose corresponding sanctions against individual employees or the Contractor, for example a facility ban for individual employees, foremen and work crews or withdrawal of the order or barring the Contractor from subsequent orders.

The Client reserves the right to use an internal evaluation procedure to assess the quality of implementation of SHE requirements, summarise the relevant result for the awarding of later orders and to include as an award criterium.

Appendix A I Written confirmation of knowledge and recognition of the Client's SHE requirements

To Whom It May Concern,

One of our defined company goals is to ensure optimal occupational safety, health and environmental protection for the people who work with us.

Regarding implementation of domestic and international occupational safety and health and environmental protection requirements, we not only consider the importance of our obligation to our own employees, but we also expect our contractors to make the protection of their employees from accidents and work-related illness one of their highest priorities. We likewise expect compliance with environmental requirements. In order to establish uniform safety and environmental conditions, we have written SHE requirements for the planning and execution of work in the Client's facilities. The SHE requirements of the Client contain two main sections: Part A describes general SHE principles for the planning and execution of all work. Part B explains the additional policies for work in offshore areas. The SHE requirements of the Client must be observed and complied with by all contractors in order to positively influence the culture of safety and environmental protection in our facilities. The SHE requirements of the Client will be distributed to each Contractor upon awarding of the contract. Contractors are required to distribute the Client's SHE requirements to their subcontractors.

We ask that you and your subcontractors confirm with your signature that you acknowledge the contents of the Client's SHE requirements, including associated annexes, and that you will observe them in their entirety.

Name of contract

Project / discipline

Location, Date

Signature & stamp of the Contractor

Note: Service providers who only perform small amounts of work without particular hazards (for example street cleaning or plumbing work on sanitary facilities at temporary work sites or parts of facilities) are not required to provide signed confirmation if it is ensured that the relevant requirements of this SHE policy are communicated to the Contractor as part of general safety training prior to the begin of work. Performance of the training must be documented in writing.

Appendix A II Questionnaire regarding work, health and environmental protection

TenneT Offshore GmbH and its associated companies are legally required to meet their fiduciary duty to employees and contractors and to select suitable contractors. In order to fulfil these fiduciary duties, among other things we must receive information regarding the organisation and policies regarding occupational safety, health and environmental protection within your company or company division as well as those of your company's subcontractors.

Please fully and truthfully answer the following questions:

Company:

Business unit:

Address:

Please name the current project and the individual sub-projects or groups for which you will be working:

Title:

Contract:

Has your company ever performed work for TenneT TSO GmbH or TenneT Offshore GmbH?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>

If **yes**, when and for what project / subproject / group?

1. Are certified management systems available for occupational safety and health protection?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>

If yes, from which certifying agency?

For which certification?		
Occupational safety and health protection	OHSAS 18001 / ISO 45001	<input type="checkbox"/>
	ILO	<input type="checkbox"/>
	SCC	<input type="checkbox"/>
	OHRIS	<input type="checkbox"/>
	BG Gütesiegel (BG seal of approval)	<input type="checkbox"/>
Environmental protection	EMAS	<input type="checkbox"/>
	ISO 14001	<input type="checkbox"/>
Quality management	ISO 9001	<input type="checkbox"/>
	VdS certificate	<input type="checkbox"/>
Other		<input type="checkbox"/>

Are these management systems in place for the entire company?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>

If not, which company divisions use the management systems specified above?

2. How do you meet the legal requirements of the German Occupational Safety Act and DGUV Regulation 2 'Company Physicians and Occupational Safety Specialists'?	
➤ With your own safety specialists?	Yes <input type="checkbox"/> No <input type="checkbox"/>
➤ With a consulting service provider?	Yes <input type="checkbox"/> No <input type="checkbox"/>
➤ With the corporate model of your social liability insurance provider?	Yes <input type="checkbox"/> No <input type="checkbox"/>

3. Are safety officers designated in your company?	Yes <input type="checkbox"/> No <input type="checkbox"/>
How many safety officers are designated?	(Number)
How many safety officers are designated for this contract?	(Number)

4. Are first responders designated in your company and required to take refresher courses on an annual basis?	Yes <input type="checkbox"/> No <input type="checkbox"/>
If yes , how many of the employees regularly assigned to TenneT facilities are first responders?	(Number)

5. Are offshore first responders designated and required to take refresher courses on an annual basis in accordance with the DGUV Recommendation 'First aid in offshore wind parks'?	Yes <input type="checkbox"/> No <input type="checkbox"/>
If yes , how many of the employees regularly assigned to TenneT facilities are first responders?	(Number)

6. If necessary, who performs occupational health and safety preventative measures in accordance with Regulation 6 and / or in accordance with AWMF guidelines of other internationally recognised standards (for example, NOGEP, OLF, UKOOA) (Preventative Occupational Medical Treatment or Fitness)?	
Name:	
Address:	

7. Please provide us with the relevant officers in your company (for TenneT worksites) for the following areas:

Occupational health and safety:

Onshore:		Phone:	
Offshore:		Phone:	

Company physician:

Onshore:		Phone:	
Offshore:		Phone:	

Environmental protection:

Onshore:		Phone:	
Offshore:		Phone:	

Water resource protection:

Onshore:		Phone:	
Offshore:		Phone:	

Waste:

Onshore:		Phone:	
Offshore:		Phone:	

Hazardous goods:

Onshore:		Phone:	
Offshore:		Phone:	

Hazardous substances:

Onshore:		Phone:	
Offshore:		Phone:	

Emissions:

Onshore:		Phone:	
Offshore:		Phone:	

8. Are your employees regularly instructed, trained or qualified by you according to their duties regarding the following topics in a manner that is understandable to the employees?

Occupational health and safety	Yes <input type="checkbox"/>
	No <input type="checkbox"/>

Environmental protection	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
Hazardous substances	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
Use of PPE	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>

9. Domestically: What social liability insurance company do you belong to?

Social liability insurance company name:

Membership no.:

10. In international areas / for foreign companies: what insurance provider covers you/your employees?
 (Please attach the insurance policy as an attachment to your response.)

Insurance provider:

Policy no.:

11. Are regular construction site and ship walkthroughs performed and documented by your company?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>

12. Do you ensure that supervisors / managers on site are able to communicate in the German language?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>

13. Do you ensure that these groups of persons (if assigned to offshore areas) also speak English and are able to communicate with and be understood by employees there (in English, for example)?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>

14. How many reportable work accidents with lost time of more than three days has your company recorded in the past year?	(Number)
How many work accidents with lost time of more than one day has your company recorded in the past year?	(Number)

How many total hours were worked in your company / company division?	(Number)
How many employees do you employ in your company / company division?	(Number)
How high was your LTIF (LTIF: Lost Time Injury Frequency / Number of accidents with lost time of at least one working day per million hours worked)?	(Number)
How many fatal accidents occurred in your company / company division?	(Number)

15. Have you prepared hazard assessments for all activities that your employees perform for your company?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>

16. Do you provide the correct and necessary Personal Protective Equipment appropriate for the work to be performed in accordance with the hazard assessment you have prepared?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>

17. Are your working and operational materials suitable for the performance of the work contract?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
Are they regularly inspected according to legal requirements for defects or damage, with the result documented?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>

18. Is accumulated waste disposed of using a professional waste disposal company?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>

19. In order to evaluate the information that you provided, we request that you provide information regarding the number of employees within your company.	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
Total number: _____		
Number of administrative employees: _____		

For information regarding questionnaire answers, our occupational safety specialists and SHE officers are happy to be available. Please contact your TenneT project manager as needed.

We thank you for answering these questions and look forward to a successful collaboration

Declaration by the Contractor:

We hereby confirm the completeness and correctness of the information provided and in the event of conclusion of a contract we undertake to meet applicable occupational safety, health and environmental protection requirements and the policies of TenneT. We consent to the electronic storage and use of the above entries and data from on-site inspections for the purpose of use within TenneT.

Location, Date	Signature & stamp of the Contractor
-----------------------	--

Appendix A III SHE plan for the performance of work

The Contractor must prepare a specific SHE plan, to be submitted to the Client during the planning phase, which describes the performance of all planned work, both by the Contractor as well as all subcontractors. The SHE requirements are derived from statutory requirements, the technical state of the art, the SHE policies of the Client and the official requirements of permitting authorities.

If there are multiple SHE plans for specific groups working under the contract, the SHE policies and requirements, in particular their interfaces, must be coordinated. The primary contractor is responsible for the coordination.

In each SHE plan, at least the following items must be described. This list provides an overview of the minimum contents required by the German permitting authority (BSH) and by the Client but makes no claim to completeness.

Contents of the SHE plans:

- Description of operation, planned activities
- Scope of the SHE plan
- Terms, definitions, abbreviations, regular updating of SHE plans
- SHE policy
 - of the primary contractor and subcontractors
 - Policy
 - SHE goals (referred to as 'SMART')
 - Implementation of applicable legal requirements
 - Consideration of special local conditions
 - Alcohol and drug policy
 - Working time policy
- Structure and responsibilities
 - Organisational diagram of operation with contact information
 - General
 - SHE organisational structure for the operation

- Responsibilities and obligations, matrix for each site, platform and / or ship:
 - General responsibilities for the operational phase, description of the responsibilities of the operational management; obligation to ensure that work proceeds safely; consideration of own employees, subcontractors and suppliers
 - SHE responsibilities during the operational phase and for each construction site / each ship (incl. waste disposal and soil and water resource protection)
 - SHE powers during the operational phase and for each construction site / each ship (incl. waste disposal and soil and water resource protection)
 - Posting / publication of the most important contact persons with contact information
 - For ships: Access control to ship, persons on board, maximum occupancy
- SHE management for the primary contractor and subcontractors
- Collaboration of multiple companies
 - Designation of an occupational safety and health coordinator (SiGeKo) (during the planning phase) in accordance with the German building site regulation
 - Adjustment of the hazard assessments to consider potential hazards that can arise from the work of other contractors as well as hazards that can arise from facilities found on site.
- Communication and document sharing
 - Communication matrix between the Client, Contractor, subcontractors and authorities
 - Documentation and data control (processes for the preparation of documents and records, their updating, publications and distribution etc.)
 - Submission of the SHE documentation to the Client
 - Reporting of incidents, accidents, near misses, unsafe situations and environmentally relevant incidents and malfunctions Type of record (incl. forms) and reporting to affected parties (incl. Client / MOC)
 - SHE meetings between the Contractor and Client (logs)
 - Management reports
 - For floating units: Radio communication, regular checks (also regarding environmental protection)
- Use of suitable personnel
 - Medical examinations, requirements for certain operational activities
 - Suitability, education, training and regular instruction, requirements and documentation (records, certificates, schedule / deadline tracking, evidence checks, process description)
 - Qualification and training matrix
 - Certificate management
 - Personnel reporting system (control system describing how many and what persons are on site)

- Safe work – organisation (planning, hazard assessments, SHE meetings, etc.)
 - Planning of operational activities
 - HAZID / HAZOP meetings (process description, documentation, etc.)
 - Hazard assessment and documentation of all work (description of methods used, monitoring of measures, schedule / deadline tracking, etc.)
 - Process description for unplanned work
 - Work procedures, process descriptions, user instructions
 - Maintenance and upkeep plan
 - Processes for the use of inspected tools and work equipment
 - Permit for work system, including associated forms and documentation
 - Toolbox Talks / discussion of work prior to beginning work / short safety discussions incl. possible hazards and measures to be taken
 - Checks, inspections, audits and on-site walkthroughs in order to review implementation of SHE requirements, interval

- Safe work – procedures, equipment, measures
 - Traffic safety requirements
 - Personal protective equipment (PPE): Provision, use, training
 - Regular inspection, maintenance and upkeep of tools, work devices and equipment etc. (inspection and maintenance plan, certification, documentation)
 - Transport of material
 - Handling of hazardous goods
 - Handling of hazardous materials (emergency measures)
 - Work near electrical equipment
 - Work with falling hazard
 - Crane work
 - Diving work / work under water
 - Welding work / hot work
 - Work in confined spaces
 - Minimisation of noise and vibrations
 - Cleaning and tidying of work site after completion of work
 - Waste management plan
 - Minimisation of soil impact
 - Environmental protection measures (especially water and soil resource protection)

- Special SHE policies regarding operational activities
 - Transport of persons, in particular consideration of boat and helicopter transfer

- Restrictions pertaining to boat transfer
- Work with radioactive sources
- SHE requirements for the use of a jack-up barge
- Emergency preparedness and emergency control measures
 - Emergency communication matrix and emergency phone numbers (differentiation by various emergency situations, e.g. personal accident, fire, ship operations, environmental contamination etc.)
 - Rescue chain and facility monitoring
 - Process description
 - Listing, use of suitable rescue equipment (for example high rescue equipment, rescue boats, rescue rings, stretchers, first aid boxes etc.) including references to their operating instructions, regular exercises etc.
 - Emergency exercises (training plan incl. authorities and responsibilities)
 - Emergency signals at offshore work sites
 - Posted emergency plan (determination of suitable locations on site)

For floating units: Determination of measures for assisting floating units in distress at the site.

Appendix A IV List of relevant laws, regulations, policies and information

When applying laws, regulations, guidelines and information sheets, in cases of doubt the stricter requirements are to be implemented. More specific information on this topic can be found in the technical specifications of the Client.

Occupational safety and environmental protection laws and regulations

AbwV	German Waste Water Ordinance
AbwAG	German Waste Water Levy Act
ArbSchG	German Occupational Safety Act
ArbStättV	German Workplace Ordinance
ArbZG	German Working Hours Act
EWL	German Ordinance on the European List of Waste (List of Waste Ordinance)
AwSV	German Ordinance on Facilities for Handling Substances Hazardous to Water
BaustellV	German Construction Site Ordinance
BetrSichV	German Industrial Safety Regulation
BImSchG	German Federal Immission Control Act
BioStoffV	German Biological Agents Ordinance
BNatSchG	German Federal Nature Conservation Act
BBodSchG	German Federal Soil Protection Act
BBodSchV	German Federal Soil Protection Ordinance
ChemG	German Chemicals Act
ChemVerbotsV	German Chemicals Prohibition Ordinance
FlugfunkV	German Aviation Radio Communications Ordinance
FlsBergV	German Continental Shelf Resource Mining and Extraction Ordinance
GefStoffV	German Hazardous Substances Act
GrwV	German Groundwater Ordinance
ProdSG	German Equipment Safety Act
IfSG	German Infection Protection Act
KrWG	German Recycling Law
LärmVibrationsArbschV	German Noise and Vibration Health & Safety Ordinance
LasthandhabV	German Manual Handling of Loads Ordinance
LMHV	German Food Hygiene Regulation
Offshore-ArbZV	German Offshore Working Time Ordinance
OGewV	German Surface Water Resources Ordinance
PSA-BV	German Regulation on the Use of Personal Protective Equipment
RöV	German X-Ray Regulation
StrlSchV	German Radiation Protection Ordinance
USchadG	German Environmental Damage Act
WHG	German Water Resources Act

8. ProdSV	Ordinance on the Placing on the Market of Personal Protective Equipment
9. ProdSV	German Machine Ordinance
14. ProdSV	German Pressure Equipment Regulation
4. BImSchV	German Ordinance on Installations Requiring a Permit
12. BImSchV	German Hazardous Incident Ordinance
32. BImSchV	German Noise Emission by Equipment and Engines Ordinance

Technical rules pertaining to laws and ordinances

Technical Rules for Workplaces (ASR)

ASR A1.2	Room dimensions and movement areas
ASR A1.3	Safety and health protection signage
ASR A1.5/1.2	Floors
ASR A1.6	Windows, skylights and transparent walls
ASR A1.7	Doors and gates
ASR A1.8	Traffic routes
ASR A2.1	Protection against falls and falling objects, entry to hazardous areas
ASR A2.2	Fire prevention measures
ASR A2.3	Escape routes, emergency exits, escape and rescue plan
ASR A3.4	Lighting
ASR A3.4/3	Safety lighting, optical safety guidance systems
ASR A3.5	Room temperature
ASR A3.6	Ventilation
ASR A4.1	Sanitary facilities
ASR A4.2	Break and standby rooms
ASR A4.3	First aid rooms, first aid equipment and facilities
ASR A4.4	Quarters

RAB	Rules for industrial safety on building sites
TRB	Technical regulations related to the pressure equipment ordinance - <u>pressure vessels</u>
TRbF	Technical Regulations for Flammable Liquids
TRBA	Technical Regulation for Biological Materials
TRBS	Technical Regulations on Industrial Safety and Health
TRGS	Technical Regulations on Hazardous Substances
TRR	Technical regulations related to the pressure equipment ordinance - <u>pipes</u>
TRwS	Technical regulations for water-endangering substances

Regulations of 'German Social Accident Insurance (DGUV)'

DGUV Regulation 1	Principles of Prevention
DGUV Regulation 3	Electrical Systems and Equipment
DGUV Regulation 6	Preventative Occupational Medicine
DGUV Regulation 9	Safety and Health Protection Signage in the Workplace
DGUV Regulation 11	Laser radiation
DGUV Regulation 15	Electromagnetic fields
DGUV Regulation 38	Construction work
DGUV Regulation 40	Dive work
DGUV Regulation 52	Cranes
DGUV Regulation 54	Winches, Hoists and Pulling Equipment
DGUV Regulation 68	Industrial Trucks
DGUV Regulation 70	Vehicles
DGUV Regulation 83	Accident Prevention Regulations for Companies Involved in Seafaring

Regulations of 'German Social Accident Insurance (DGUV)'

DGUV Guideline 100-001	Principles of Prevention
DGUV Guideline 103-011	Work on live electrical systems and equipment
DGUV Guideline 103-013	Electromagnetic fields
DGUV Guideline 112-190	Use of protective clothing
DGUV Guideline 112-190	Use of respiratory protective devices
DGUV Guideline 112-191	Use of foot and knee protection
DGUV Guideline 112-192	Use of eye and face protection
DGUV Guideline 112-193	Use of head protection
DGUV Guideline 112-194	Use of hearing protection
DGUV Guideline 112-195	Use of protective gloves
DGUV Guideline 112-198	Use of personal fall protection equipment
DGUV Guideline 112-199	Use of personal protective equipment for rescue from heights or depths
DGUV Guideline 112-201	Use of personal protective equipment against drowning
DGUV Guideline 100-500	Use of equipment

Information Sheets from 'German Social Accident Insurance (DGUV)'

DGUV Information Sheet 204-006	Information on first aid
DGUV Information Sheet 211-001	Transfer of operator obligations
DGUV Information Sheet 211-003	Confirmation of transfer of operator obligations
DGUV Information Sheet 212-515	Personal Protective Equipment
DGUV Information Sheet 211-005	Training – Part of operational occupational health and safety protection
DGUV Information Sheet 231-001	Work in confined spaces
DGUV Information Sheet 209-004	Safety letter - Handling of hazardous substances
DGUV Information Sheet 209-012	Crane operators
DGUV Information Sheet 209-013	Slings
DGUV Information Sheet 211-010	Safety through operating instructions
DGUV Information Sheet 203-005	Selection and operation of portable electrical equipment according to conditions of use
DGUV Information Sheet 203-006	Selection and operation of electrical systems and equipment at building and installation sites
DGUV Information Sheet 208-019 / BGI 720	Safe handling of drivable hoisting stages
DGUV Information Sheet 209-021	Load tables for slings made of steel chains, round slings, synthetic webbing, synthetic ropes, natural fibre ropes
DGUV Information Sheet 203-007	Wind energy equipment
DGUV Recommendation	First aid in offshore wind parks
DGUV Information Sheet 250-006	Data sheet on the handling of illness caused by work in pressurized environments (work in high air pressure, dive work)
DGUV Information Sheet 208-016	Instructions for working with ladders and steps
DGUV Information Sheet 208-019	Safe handling of drivable hoisting stages

DGUV Information Sheet 213-013	SF ₆ facilities and equipment
DGUV Information Sheet 203-016	Labelling of work areas in electrical facilities with UN > 1 kV
DGUV Information Sheet 203-028	Work with cable-cutting devices
DGUV Information Sheet 203-032	Selection and operation of auxiliary generators at building and installation sites
DGUV Information Sheet 203-035	Exposure thresholds for artificial optical radiation
DGUV Information Sheet 212-024	Hearing protection

Norms and VDI Guidelines

Due to the number of DIN norms and VDI guidelines, an exhaustive list is not provided here. Instead a sample of applicable standards is provided. Other norms and requirements are also listed in the respectively valid specifications of the Client.

DIN 4420	Working and protection scaffolds
DIN 5053	Illumination with artificial lighting, thresholds values for workplaces indoors and outdoors
DIN 20066	Fluid technology - hydraulic lines - dimensions, requirements
DIN VDE 0100	Specifications for the erection of power installations with rated voltages below 1000 V
DIN VDE 0105	Operation of electrical systems
DIN VDE 0113	Industrial machine safety – electrical systems of industrial machines
DIN VDE 0132	Fire suppression near electrical systems
DIN VDE 0140	Protection against electric shock – common requirements for systems and equipment
DIN VDE 0141	Earthing system for special power installations with nominal voltages over 1 kV
DIN 87903	Ships and marine technology – safety plans for fire protection, rescue aids and evacuation routes
DIN ISO 17631	Ships and marine technology – safety plans for fire protection, rescue aids and evacuation routes - design
DIN ISO 14122-4	Fixed ladders

General maritime rules

GGVSee	German Ordinance on the Transport of Hazardous Goods - Sea
IALA	International Association of Lighthouse Authorities
ICAO	International Civil Aviation Organisation
IMCA DO	International Marine Contractors Association
IMCA D034	Norway/UK Regulatory Guidance for Offshore Diving
IMO	International Maritime Organisation
JAR OPS 3	Commercial air transportation of persons and objects in helicopters
KüSchV	German Coastal Shipping Ordinance
KVR	International Regulations for Preventing Collisions at Sea
MARPOL 73/78	International Convention for the Prevention of Pollution from Ships
SchKrFürsV	German Ordinance on Medical Treatment on Merchant Ships
SchSV	German Ship Safety Ordinance
MPM	German Offshore Installations Ordinance
SeeAufG	German Federal Maritime Responsibilities Act
SeeSchStrO	German Traffic Regulations for Navigable Maritime Waterways
SeeStrO	German Maritime Waterways Ordinance
SOLAS 74	International Convention for the Safety of Life at Sea
UNCLOS	United Nations Convention on the Law of the Sea
STCW 95	International Standards of Certification, Training and Watchkeeping for Seafarers

BSH Permit Requirements

BSH Standard	Constructional design of offshore wind energy equipment (2007)
BSH Standard	Investigation of the effects of offshore wind energy facilities on the marine environment (STUK 3, 2007)
BSH Standard	Subsoil investigation for offshore wind energy parks (2008)

Information for seafaring

Notices to Mariners, official publication for seafarers
Nautical warning notices from the Emden maritime warning service (NWN)
Regional notices for seafarers from the Waterways and Shipping Office (WSA)
Notices from the Wasser- und Schifffahrtsdirektion Nord (Water and Shipping Directorate North)

International standards for offshore platforms

DNV-GL-J201	Offshore Substations for Wind Farms, October 2009
DNV-OS-C101	Design of Offshore Steel Structure, October 208
DNV-OS-D201	Electrical Installations. October 2008
DNV-OS-D202	Automation, Safety and Telecommunication Systems, October 2008
DNV-RP-C203	Fatigue Strength Analysis of Offshore Steel Structures, April 2008
DNV MARINE OPERATIONS:2000	Rules for Planning and Execution of Marine Operations
MODU CODE	Code for the construction and equipment of movable offshore drilling platforms, 2009
NORSOK C-001	Living quarters area
NORSOK S-001	Technical Safety
NORSOK S-002	Working environment

Correction service for nautical publications according to Notices to Mariners (Nachrichten für Seefahrer, NfS)

Nautical chart corrections
Corrections to rutters (mariners' handbooks)

Guidelines / good practice guides

Guide to offshore diving work by DNV GL SE
Occupational medical fitness examinations for employees on offshore wind facilities and other offshore platforms of AWMF (Association of the Scientific Medical Societies in Germany)
Working guide on explosive ordnance clearance (construction technical guidelines for economical detection, planning and clean-up of weapons and ordnance on federal territory) of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMUB)

The laws and ordinances listed here always refer to the currently valid version No claim is made to the completeness of this list

Appendix A V Form ASG1 of the Client



Formblatt ASG 1

Erklärung der Mitarbeiter von Firmen entsprechend Arbeitsschutzgesetz § 8 (2) (für stichprobenartige Kontrolle)

Firma _____

UW / Anlagenteil _____
 Leitung _____

Hiermit bestätige ich, dass ich über Gefahren, die von Anlagen des Anlagenbetreibers ausgehen und die einzuhaltenden Arbeitsschutzmaßnahmen angemessen informiert und eingewiesen worden bin.

- Elektrische Gefahren
- Absturzgefahren
- Gefahrstoffe
- Elektrische / magnetische / elektromagnetische Felder
- Betreten von Kabelkanälen
- _____
- _____
- _____

Bitte zutreffendes ankreuzen bzw. ergänzen

eingesetzte Personen

1	Name _____	Datum _____	Unterschrift _____
2	Name _____	Datum _____	Unterschrift _____
3	Name _____	Datum _____	Unterschrift _____
4	Name _____	Datum _____	Unterschrift _____
5	Name _____	Datum _____	Unterschrift _____
6	Name _____	Datum _____	Unterschrift _____
7	Name _____	Datum _____	Unterschrift _____
8	Name _____	Datum _____	Unterschrift _____
9	Name _____	Datum _____	Unterschrift _____
10	Name _____	Datum _____	Unterschrift _____

Bemerkungen: _____

Unterweisung durchgeführt: _____

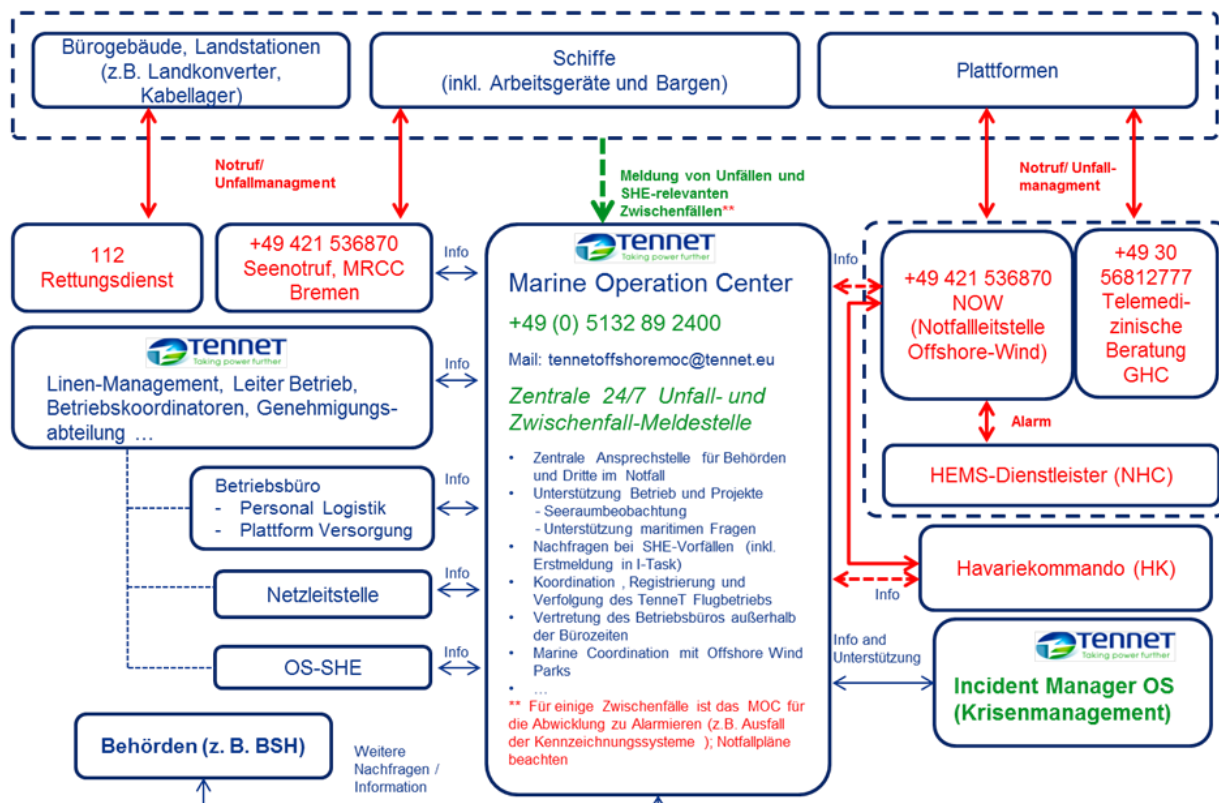
Name _____ Datum _____ Unterschrift _____

Zur Kenntnis genommen: _____


Anlagenverantwortlicher _____ Datum _____ Unterschrift _____

Appendix A VI Modes of Reporting for Accidents and SHE-Relevant Incidents at the Client in Operational Phases

Alarmplan und Meldewege für Notfälle, Unfälle und SHE-relevante Vorfälle auf TenneT Offshore Installationen, Schiffen unter Vertrag und in andere Betriebsbereiche (inkl. Onshore)



Appendix A VII Incident Report

		<h3>EREIGNISBERICHT</h3>	
1. Meldung / Art des Vorfalles <input type="checkbox"/> Arbeitsunfall / <input type="checkbox"/> Dienstwegeunfall / <input type="checkbox"/> Wegeunfall / <input type="checkbox"/> Betriebssportunfall <input type="checkbox"/> Beinaheunfall - <input type="checkbox"/> mit hohem Gefahrenpotenzial <input type="checkbox"/> Unsicherer Zustand - <input type="checkbox"/> mit hohem Gefahrenpotenzial <input type="checkbox"/> Umweltrelevanter Vorfall <input type="checkbox"/> mit Schadstoffeintrag in die Umwelt oder vorhandene Altlasten <input type="checkbox"/> mit eigenen Mitteln zu behebender Schadstoffaustritt <input type="checkbox"/> Brand / Feuer (inkl. Entstehungs- bzw. Schweißbrand) <input type="checkbox"/> sonstiger SHE-relevanter Vorfall		2. Angaben zum Ereignis: Datum: Uhrzeit: Projekt / NAS: Anlage / Ort:	
3. Meldung durch / Zeuge: Name OE / SG / Firma: Telefon / Mail: Zeuge: OE / SG / Firma: Telefon / Mail:		4. Angaben zum Verunfallten / Verursacher: OE / SG / Firma: Tätig als: Name: Der Name wird aufgrund von Datenschutzbestimmungen ggf. nachträglich durch SHE eingetragen (z.B. für Erste Hilfe Dokumentation oder BG Meldung)	
5. Detaillierte Beschreibung des Ereignisses / des unsicheren Zustandes / der Verletzung (bitte hier keine Personen- oder Firmennamen nennen): Bilder und Zusätzliche Informationen auf Folgeseite (z.B. Foto, Skizze, Gutachterbericht):			
6. Eingeleitete Sofortmaßnahmen: <input type="checkbox"/> Erste Hilfe <input type="checkbox"/> Notruf abgesetzt <input type="checkbox"/> MedEvac <input type="checkbox"/> Arztbesuch <input type="checkbox"/> Krankenhaus <input type="checkbox"/> Meldung an Vorgesetzten <input type="checkbox"/> Sofortmeldung an MOC (Tel.: +49 (0)5132 89 2400) <input type="checkbox"/> Sonstige		7. Personenschaden: <input type="checkbox"/> Leichte Verletzung <input type="checkbox"/> Ohne Ausfalltage <input type="checkbox"/> Mit Ausfalltagen (Anzahl XX) <input type="checkbox"/> Schwere Verletzung / Todesfall <input type="checkbox"/> Ersatzarbeitsplatz <input type="checkbox"/> Sonstige	
		8. Sachschaden: <input type="checkbox"/> über € 50.000,- <input type="checkbox"/> unter € 50.000,- <input type="checkbox"/> Umwelt <input type="checkbox"/> Sonstige	
9. Ursachen (Recherche durch Verantwortlichen): <ul style="list-style-type: none"> • Technische: • Organisatorische: • Persönliche: 			
10. Maßnahmen zur Vermeidung gleicher / ähnlicher Vorfälle: <ul style="list-style-type: none"> • Technische: • Organisatorische: • Persönliche: 			
Ersteller/-in: Datum/ Org.Einheit/ Telefon, Unterschrift:			
<small>Nach telefonischer Sofortmeldung an das MOC, ist der Ereignisbericht innerhalb von 24 Std. an das MOC zu senden - TenneTOffshore.MOC@tennet.eu</small>			
GSO-SHE		Stand 16.01.2017	

Appendix A VIII Example of Contents of and Operational Sequence Description

Table of Contents

1. General

- 1.1 Scope
- 1.2 Purpose
- 1.3 Definition of terms
- 1.4 List of Abbreviations
- 1.5 Applicable policies

2. Description of the operation

- 2.1 Goal of the operation
- 2.2 Contracted entity
- 2.3 Client
- 2.4 Permits

3. Responsibilities and obligations

- 3.1 Managers
- 3.2 Role descriptions
- 3.3 Monitoring and reporting

4. Work procedure planning

- 4.1 Description of the work procedure
- 4.2 Work procedure to be implemented
 - 4.2.1 Areas of application
 - 4.2.2 Permit and permission documents
 - 4.2.3 Test results
 - 4.2.4 Operating instructions
- 4.3 Tools and devices used
 - 4.3.1 Areas of application
 - 4.3.2 Operating instructions
 - 4.3.3 Inspection deadlines
 - 4.3.4 Personnel requirements
 - 4.3.5 Permit and permission documents
- 4.4 Hazardous substances used
 - 4.4.1 Areas of application

4.4.2 Operating instructions

4.4.3 Safety data sheets

4.5 Personnel planning

4.5.1 Number

4.5.2 Personnel requirements

4.6 Waste management

4.6.1 Waste collection

4.6.2 Waste transport

4.6.3 Waste management company

5. Hazard assessment

5.1 Hazards

5.2 Protective measures and codes of conduct

5.3 Threshold values for weather and environmental conditions

5.4 Risk assessments

6. Operating instructions

6.1 Hazards from the hazards assessment (GFB)

6.2 Protective measures and codes of conduct (according to the GFB)

7. Emergency organisational structure

7.1 Emergency plans

7.2 Emergency drills

8. Annexes

8.1 Checklists

8.2 Specifications

Part B

Additional operational SHE requirements for offshore areas that apply in addition to Part A

B.1 Persons assigned to all types of work in offshore areas

B.1.1 Offshore Installation Manager (OIM) for the platform

The OIM must be appointed in writing by the Client for the operational phase.

He monitors the performance of work on the platform (electrical, inspection, maintenance and installation work) including safe use of all operating and work equipment for safe interaction with the high voltage equipment. He must be included in all decisions regarding health and safety protection for all offshore personnel located at the site. In the event of violations of the policies in the SHE requirements of the Client or against other applicable occupational health and safety provisions, he must immediately notify the respective supervisor according to the communication matrix that applies to him. If there is danger ahead, he must immediately halt work and can express recommendations.

In the event of conflicts, the occupational safety specialists and SHE officers of the Client must be included and solutions must be agreed upon with them.

Duties of the OIM:

- Monitoring of work for compliance with applicable SHE rules and as applicable coordination of ongoing activities in accordance with DGUV V1.
- Notification regarding (imminent) violations to those committing the violations
- Assistance with the preparation of hazard assessments
- Request introduction of countermeasures and monitoring of measures used for work to be performed
- Give orders to stop work if protective measures are not observed
- Escalation within the organisation
- Incident commander in the event of emergencies if no other person has been designated (for example service group employees (SG))
- Coordination and approval of ship operations in the 500 m zone if no other person has been designated (e.g. MOC officer on duty)
- Communication and contact person for ships and other offshore installations
- Review of permits for work for plausibility

B.1.2 Coordinator as defined in DGUV Regulation 1

The policies of the German social liability insurance providers provide for a managing coordinator to facilitate collaboration between multiple companies. He is provided with authorisation to issue orders pertaining to coordination of work on the offshore HVDC converter.

This role must be transferred in writing. This role is generally transferred to the OIM or an employee of the SG. Several crew members can be conferred this role for various technical areas if a detailed delineation of the technical areas is performed for the types of work associated with the respective campaign.

As part of collaboration between multiple operators, the coordinator coordinates work as necessary to avoid potential mutual endangerment.

If there are multiple coordinators as defined in DGUV Regulation 1, for example in the case of mother-daughter platforms, upon which the coordinator is designated by a general operator on one platform, then the Client's OIM is authorised to give orders as the manager with highest seniority. Deviating policies are to be agreed upon for specific cases between the Client and contractors / general operators.

B.2 Working hours in offshore areas

In coastal sea areas as well as in the exclusive economic area of the Federal Republic of Germany, and on ships that sail under the German flag, the German Offshore Working Hours Ordinance (Offshore-ArbZV) within the meaning of § 15(2a) of the German Working Hours Act or § 55(1)(3) of the German Maritime Work Act shall apply. If the German Offshore Working Hours Ordinance (Offshore-ArbZV) does not apply, the German Working Hours Act shall apply.

Moreover, the provisions of the Contractor's respective contractual and collective bargaining agreements must be observed. Requests for deviation from the regulations of the German Working Hours Act or the German Offshore Working Hours Ordinance must be coordinated with the competent occupational safety authorities and a copy must be immediately provided to the Client.

Determination of working hours for crews on watercraft that sail under a European flag can be made according to directive H1999/63/EGH regarding the working hour requirements for seamen. For ships that fly under non-European flags, the laws of the respective state shall apply. If work is performed as part of 24-hour operations, this work is to be scheduled so that the rest periods for the relieved shift are not influenced.

Moreover, the following items must be considered when setting working hours:

- If performance of the planned work is anticipated to exceed the daily maximum working hours or if the duration may not be precisely estimated, an overnight stay at the site must be planned.
- Work outside on platforms may only take place during daylight or under lighting that is equivalent to daylight, and only with suitable weather conditions (see B.3).

B.3 Weather conditions

Weather conditions must be taken into consideration in the hazard assessments for all work that is influenced by the prevailing weather conditions.

A weather station must be located on site at the offshore HVDC converter platform or on ships. This makes it possible to receive weather data that is available to the OIM and MOC for analysis. Particularly in advance of larger and longer-lasting, interconnected work, at least two independent weather forecasts must be obtained and evaluated by managers.

The OIM a competent person evaluates the weather conditions on site taking into consideration wave height, wind strength, wind direction and other weather parameters (storms, ice, slippery conditions etc. and stops work as necessary. He coordinates with managers and other responsible persons (the shuttle and offshore standby vessel, helicopter pilot, captain, crane operator / crane supervisor etc) and makes use of their advice in his decisions.

B.4 Rules for access to the platform for persons who have not participated in offshore training practical exercises

Sojourn in offshore areas for persons who have not participated in the practical exercises of offshore training (HUET and / or BOSIET) is only possible in special exceptional cases and must be approved by a senior manager / managing director for NAS in operation in consultation with the occupational safety specialist.

A written declaration of understanding of the respective supervisor / contractor must also be obtained. Moreover, a hazard assessment for this assignment must be prepared in which special measures are determined (for example training on proper behaviour in case of emergency, behaviour in a helicopter crash, behaviour in cold water, operation of hand fire extinguishers). This hazard assessment must be submitted to a senior manager / managing director together with existing medical certificates certifying occupational medical eligibility with a justification for the relevance of the assignment for NAS in operation.

The following points must be observed in special cases.

- These may only involve daytime assignments without planned overnight stays and the exception is only made once per person and assignment.
- Safety training does not need to be completed. Instead, special measures are to be implemented according to the hazard assessment for this assignment and documentation of this is to be presented.
- Proof of occupational medical eligibility for assignment to offshore areas must be presented (for example, in accordance with AWMF guidelines).
- Proof of participation in training sessions in accordance with the German Occupational Safety Act (ArbSchG) must be shown (particularly for sojourn in offshore areas).
- Persons without BOSIET training may not perform work involving the risk of falling into open water.
- A maximum of one person per row may sit without HUET training; this person may not sit next to emergency exits when ship is fully occupied.
- Each person without offshore training must be constantly accompanied by at least one person with several years of offshore experience.

Exceptions may only be granted under the following conditions:

- In order to avoid acute hazards to life and limb
- to the environment
- other persons
- or imminent or long-lasting loss of the grid connection.

Generally, it must be determined whether in the short term a one-day HUET course can be provided.

B.5 Suitable work clothing and personal protective equipment in offshore areas.

Suitable work clothing means for example industry-specific professional clothing or clothing provided by the employer.

During working hours and in hazard areas on and within offshore platforms, reflective work clothing that covers the entire body as well as safety shoes that are at least ankle-high according to the S3 norm must be worn. This means for example that working in trousers, jeans and t-shirts is not permitted!

In addition to PPE (see [Chapter A.15](#)), survival suits / rescue suits as well as suitable (work) rescue vests must be provided by the Contractor for certain work and emergency situations in offshore areas. The number of these PPEs is to be determined according to SOLAS and is based on the maximum number of persons simultaneously present on watercraft and / or offshore platforms. The equipment must meet currently the

valid standards and test criteria of BG Verkehr, DGUV and SOLAS and be appropriately certified for seafaring and offshore use.

Wearing of a survival suit and a (work) rescue vest

- For helicopter flights in offshore areas, a survival suit (EASA approved in accordance with ETSO 2C503) must be worn, depending on the model also together with a semiautomatic (work) rescue vest. It is not permitted to wear a fully automatic rescue vest in combination with a survival suit during helicopter transfer.
- Depending on the temperature, it is recommended to wear at least three layers of clothing instead of thick underclothing.
- For work in mud flat areas, it is not necessary to wear a survival suit. A work rescue vest must however be worn for work associated with a risk of falling into open water.
- Rescue vests must be adjusted to the weight of the person wearing them and their necessary clothing / equipment (differing flotation). For work associated with a risk of falling into open water, a survival suit must generally be worn (exception, for example over mudflats). If wearing of a survival suit is inappropriate, (for example for welding work), other suitable measures must be determined in a hazard assessment for achievement of the same protection goal.

PPE for ship transfer and climbing over

The PPE that must be worn for a ship transfer, particularly during climb over must include at least the following:

- PPE according to [Chapter A.15](#)
- Automatic rescue vest approved by BG Verkehr and SOLAS for seafaring and offshore areas.

Note: When accessing a ship with fixed structures on a secured gangway, for example in the port, the ship may be entered without wearing rescue vests.

- When climbing over to offshore platforms, a fully automatic (work) rescue vest and a suitable survival suit with sufficient freedom to move must be worn.
- When climbing over into near-coastal areas, a survival suit does not need to be worn if rapid rescue is guaranteed and there is no risk of hypothermia. This must be documented in a corresponding hazard assessment.
- Use of an ELT, PLB or the like (depending on the hazard assessment at the time of the respective transfer).

B.6 Crew and sojourn on platforms and ships

Platform

For safety reasons, after installing the platform in the offshore area, the stay on the platform is generally permitted in accordance with the Client's regulations for the platform crew (IH OS-101 platform crew with attachments and supplements).

The maximum crew size of the platform is based on accommodation capacity and available capacity for evacuation from the platform in the rescue boats. Based on the number of rescue devices, the Client's guideline IH-OS-550 must be observed. If the platform is flown to by helicopter, additional emergency beds must be kept available for the pilots and passengers. First aid measures, emergency helicopter evacuation and a sufficient number and functionality of rescue equipment on the platform must be ensured. An increase of the POB outside the approval must be requested from the approval authority.

A time limit for the residence of persons results from the ArbZG, the Offshore-ArbZV, the European Directive 2003/88/EC and from the respective (collective) agreements of the workers employed (see [chapter B.2](#) and [A.6](#)). In general, when planning and organising offshore operations, sudden deterioration in the weather must be taken into account and sufficient food must always be provided to all employees over a period of **at least 14 calendar days**. Weather-caused cancellation of regular supply trips must be taken into consideration.

All persons are obligated to keep their personal areas, shared accommodation areas and common areas in proper condition and left as it was found. A housekeeping plan must be prepared by on-site managers on the platform that establishes responsibilities. The plan must be updated regularly and adapted according to changes in the crew. The responsible person on site must also make arrangements for the regular supply of fresh laundry.

Persons under the age of 18 may not work on platforms in offshore areas. On presentation of risk assessments and with the consent of the supervisor and an occupational physician, exceptions may be granted by the Area Manager of the NAS in consultation with the Client's Occupational Safety Specialist.

Ship crews

Each ship must be operated with the minimum crew required by its flag State (Safe Manning Certificate or flag State requirements). In the case of small vessels or vessels not subject to safe manning or flag State requirements, the minimum number of crews necessary for the safe operation of a ship shall at no time be less than the minimum number required. A justification for the number of crew and their professional qualifications shall be submitted to the vessel coordinator.

In the case of small, e.g. inflatable boat-like vessels, at least three crew members must be led at all times in

order to ensure a safe crossing and, if necessary, the rescue of a person who has gone overboard. In the case of small vessels, e.g. those used near mudflats or for transport between islands, the third crew member can be eliminated if rescue is ensured by other means and this is also the result of a risk assessment.

Passengers or persons to be transported are not included in the minimum crew. In addition, the number of persons on the ship must not exceed the number for which the ship is approved and for which appropriate life-saving equipment is available.

B.7 Registration for offshore operations

All persons who are to work on offshore platforms must be registered with the Client in writing in advance with submission of the corresponding certificates. The Client takes over the registration at the respective transfer service company. The transfer company requires proof of identity and valid safety training before departure.

The registration of all persons must be documented in writing, stating the following data:

- Name and identity card number
- Time of shuttle's departure (vessel, helicopter)
- Shuttle destination
- Time at which the person returns to the shuttle.

B.7.1 Reporting system on offshore platforms (e.g. T-Card system)

A "T-Card system" is set up on site. Sample rolls are displayed to keep track of the personnel and emergency organisation on the offshore HVDC converter platform and to ensure rapid sampling of the POB and coordination of the ERT in the event of an emergency. The card plug-in system records which and how many persons are on the offshore HVDC converter platform. Each employee receives a T-card, which they insert into a card slot at the assigned sample station and turn over during a sample, so that the presence of the POB can be determined quickly. The OIM or their representative shall be responsible for personnel registration and updating of the model roles on "their" platform and shall provide evidence of this accordingly.

B.7.2 Registration and de-registration system on the platform (station book)

The responsible person (OIM) or a person appointed by the same on the platform shall keep a list with the following information:

- Date and time of arrival/departure
- Name in block letters and signature
- Activity
- Company
- Cabin occupancy

The OIM is responsible for the registration and de-registration system. The user must at all times be aware of which and how many persons are on the platform and for what work they are assigned. A complete list of all persons on board shall be kept in the event of an emergency.

All persons must carry their identity card and security passport or copies of their HUET and BOSIET certificates as well as other offshore certificates, etc.

B.8 Daily reports for work in offshore areas

B.8.1 Daily reports for platforms

If work is performed offshore on platforms, a daily report / weekly report must be prepared by the Client and sent to the MOC by the following day at the latest. Additional recipients can be found in the current communication matrix.

The daily report must include at least the following information:

- Number and names of the persons at the site
- Name of ships within the 500 m zone
- Hours worked
- Description of work
- planned work according to PTW and their status after PTW expires

- Number of accidents
- Number of minor incidents (including environmental incidents)
- Number of near misses
- First aid treatments provided
- Beginning and end of work
- Status of safety systems and fill status of the tanks (diesels, bilges, black water, drinking water etc.)
- Weather conditions
- Machines, devices and tools used, including any ships or helicopters involved
- Meetings and briefings conducted
- Safety drills performed
- Safety drills performed by a rescue team Names of participating persons and level of training
- Number and times of departure and arrival for transfers by ship and / or helicopter (arrival and departure from the offshore platform)
- Regular inspection and maintenance of rescue and fire extinguishing equipment

B.8.2 Daily reports for ships

Daily reports shall be prepared for all ships in accordance with the specifications of the contract.

At least the following items must be documented in the daily report.

- Number and names of persons
- Hours worked
- Work performed
- Hazardous work performed
- Work permits issued
- Number of accidents
- Number of minor incidents (including environmental incidents)
- Number of near misses
- First aid treatments provided
- Weather conditions

The daily ship reports must be sent to the MOC no later than the following day. Additional recipients can be found in the current communication matrix.

B.9 Qualification and suitability of ship crews

B.9.1 Occupational medical Suitability

The performance of occupational medical examinations is an expression of the general duty of care and serves to prevent work-related damage to health. When working with special hazards or loads, it must be checked at regular intervals whether there is a health hazard for the employees.

According to the Ordinance on Occupational Health Precautions (ArbMedVV), occupational health precautions must be documented when the relevant work is performed. Furthermore, the employees must be offered regular examinations.

B.9.2 Medical suitability for stays in the offshore area

Emergency medical care must be provided by the responsible persons during the operating phase. It takes several hours until qualified medical care is possible, even in the best case. Adverse weather conditions can cause long delays in patient transport to the mainland or from an emergency doctor's transfer to the offshore area. Initially minor health problems can worsen considerably during this time.

In order to prevent health incidents in the offshore area, it is therefore essential to investigate the health and fitness status as well as the resilience of persons working in the offshore area. Therefore, all persons working in the offshore area (platforms, ships and other floating units) must provide evidence of suitability tests.

Suitability tests for staying in the offshore area are carried out according to the guideline "Occupational medical aptitude tests for employees on offshore wind turbines and other offshore installations", published by the AWMF (Arbeitsgemeinschaft der wissenschaftlichen medizinischen Fachgesellschaften). National certificates from the North Sea riparian states are also recognised if they meet the standards of the oil and gas industry (e.g. NOGEP, OLF, UKOOA). In addition, depending on the work planned in the offshore area, further occupational medical suitability tests may be necessary, e.g. tests in accordance with the principles of the employers' liability insurance association in accordance with G 25 "Driving, control and monitoring activities" and G 41 "Working with a risk of falling".

In the case of special health problems or clinical pictures, further investigations can provide information on suitability for offshore use. These suitability tests shall be carried out by an occupational physician/specialist in occupational medicine in accordance with recognised occupational health standards. The occupational health examiners must have sufficient knowledge of the offshore workplace, the work spectrum and the

requirements of the safety training courses.

Note:

It should be noted that the suitability test for use in offshore areas is not equivalent with the other occupational health precautions (G-examinations), i.e. all persons may have to undergo additional special tests in accordance with their work (e.g. for wearers of breathing apparatus). The occupational health precautions required must be specified in the respective risk assessments (mandatory and regular examinations). This obligation is incumbent on the respective Contractor in their responsibility towards the employees.

Seamen/seamen crews of ships or vessels must have a valid certificate of fitness for sea service issued by BG Verkehr or equivalent.

B.9.3 Follow-up examinations for staying in the offshore area

All persons must be medically examined before their first stay in the offshore area. Follow-up examinations must be repeated at least **every 2 years**.

The examining doctor may, if necessary, order an increased frequency of the examination. The frequency of the examinations should be increased with increasing age.

After an injury or illness, the employee's state of health must be re-examined at the discretion of the supervisor. This medical follow-up examination must be carried out in any case if the incapacity for work lasted longer than 6 weeks.

B.9.4 Proof of preventive check-up

In the operating phase of offshore platforms, proof of the preventive medical check-up and suitability (medical clearance certificate) must be submitted or confirmed to the Client in writing **no later than 1 week before the start of work**, together with the documents mentioned in Chapter A.10 .

B.9.5 Hygiene and avoidance of illness in offshore areas

B.9.5.1 Preparation for assignments to offshore areas

- If symptoms of any kind of illness occur, then offshore assignment must be avoided in all cases.
- In the case of infectious diseases in the domestic environment, it may also be necessary to refrain from offshore use. In this case, information and coordination with the employer, company doctor or general practitioner are required.
- It is recommended to carry personal disinfectants (e.g. in a tube) on one's person (dangerous goods and customs regulations must be observed).

B.9.5.2 Sojourn on offshore platforms and floating units

- Any hygiene rules and/or house rules of the platform or floating unit must strictly be complied with.
- The hygiene agents must be included in a skin protection plan of the responsible company (TRGS 401 and DGUV I 212-017).
- In the event of discomfort or complaints, the paramedic or first aider Offshore and OIM must be informed immediately.

B.9.5.3 Measures for viral illnesses on offshore platforms and floating units

- Isolation of affected persons in a room with its own lavatory
- Instruction of patients and personnel regarding correct handwashing.
- Flight personnel and the helicopter service must be informed regarding a viral illness on a platform.
- Carry out careful hand hygiene, hand disinfection with an effective hand disinfectant after taking off the disposable gloves and before leaving the isolation room;
- daily (more frequently in sanitary areas) wipe disinfection of all contact surfaces close to the patient, including door handles, with a surface disinfectant with proven viricidal efficacy (per compounds or aldehydes should be preferred as active ingredients)
- clean contaminated surfaces (e.g. with stool or vomit) immediately after putting on breathing protection by disinfecting;
- Use and disinfect personal care utensils;
- Bed and body linen must be cleaned at > 60 °C using a suitable washing procedure.
- Dishes may generally be washed by machine as usual;

B.9.6 Suitability for preparation of food

If a person prepares food for other persons, this person must also prove training regarding relevant symptoms and certain illnesses in accordance with the German Infection Protection Act. Initial training must be performed at a health authority or by a physician authorised to provide such training. This training must be refreshed every two years. The refresher course may be offered by the employer and must be documented in writing. This two-year training in accordance with § 43 of the German Infection Protection Act does not replace regular training in accordance with § 4(2) of the German Food Hygiene Regulation.

B.9.7 Training and safety training

In order to achieve the highest possible safety standard, all offshore personnel must complete appropriate safety courses and training in accordance with their tasks, in addition to the legally required instructions (chapters A.13 and B.15). All Contractors must instruct and regularly instruct their employees in the implementation of the planned work in the offshore area with regard to occupational health and safety.

Only those persons who have taken part in the training sessions, courses and safety trainings required for them and who can provide evidence of these may work in the offshore area on behalf of the Principal.

Correct handling and use of the PPE and rescue equipment must be trained through emergency drills prior to the sojourn and then at regular intervals after that.

The training sessions and emergency drills (for example rescue boats, life rafts) must be documented.

B.9.8 Safety training (Basic offshore safety course)

The following courses (Safety Basic Course) and training sessions are obligatory, depending on the location and type of work, in order to prepare for the handling of hazards that may occur during ship or helicopter transfer as well as during the stay on the offshore platform.

If necessary, further training contents must be supplemented according to the conditions on the platform.

B.9.8.1 Work in offshore areas

All persons that work in offshore areas must complete a basic offshore safety training course.

Comparable training courses and measures such as those carried out in the Offshore Oil & Gas Industry (BOSIET - Basic Offshore Safety Induction & Emergency Training) and in merchant shipping (Basic Safety Training according to STCW 95) are examined and, if necessary, recognised by the Client after presenting the corresponding certificates. The course must be repeated **at least every 4 years**. Annual training with

practical exercises must be completed for the use of lifesaving PPEs.

The training includes at least the following content:

- Fire suppression
- In addition to the permanently installed fire protection equipment and extinguishing systems, offshore platforms and ships are equipped with suitable mobile extinguishing agents for fighting incipient fires, the handling of which requires regular training. Moreover, procedures in the event of heavy smoke must be trained.

Note: Fire-rescue leaders shall have advanced fire-fighting training, e.g. Advanced Fire Fighting training according to STCW 95.

Behaviour in the marine environment and in distress at sea

- Training and instruction in leaving a ship and behaviour as a shipwrecked person in water (contents at least according to STCW 95).

Handling of rescue equipment

- Education and training in the use of life-saving appliances and marine protective equipment (contents at least according to STCW 95).

Note: Rescue boat leaders and lifeboat operators must have advanced training, e.g. Rescue Boat and/or Fast Rescue Boat according to STCW 95.

B.9.8.2 Seamen Crew

The crew of the ships and vessels must have valid Basic Safety Training and Instruction for all seafarers according to STCW 95, A-VI/1.

The captain of a service ship (or smaller ships) must have at least one certificate according to STCW Regulation II/2 or II/3 (no private licenses are allowed.). This must be approved by the relevant flag State.

B.9.8.3 Working in dry mudflat areas

All persons who are only in dry mudflat areas must be instructed in how to behave in a marine environment in the event of distress at sea.

B.9.9 Helicopter underwater escape training (HUET)

The course training in what to do during emergency landings and getting out of a sinking helicopter as well as getting out of a rotated sinking helicopter (HUET - Helicopter Underwater Escape Training). The training must include instruction in the Compressed Air Emergency Breathing System (CA-EBS).

This course must be completed by all persons who are flown into the offshore area by helicopter as a matter of principle.

The course must be repeated **at least every 4 years**. Annual training with practical exercises must be completed for the use of lifesaving PPEs.

B.9.10 Work with falling hazard

All persons carrying out work with fall hazards, for whom PPE against falls from a height must be used as an additional protective measure, must receive at least one instruction with practical training in the use of PPE and the hazards with their protective measures, including rescue measures, in addition to their occupational medical suitability (G41). Working at Heights and Rescue Course).

B.9.11 Boat landing

All persons who perform a boat crossing must have at least one instruction with practical training for the necessary PPE (e.g. life jacket) as well as the hazards with their protective measures including the rescue measures (e.g. Boat Landing Course).

B.9.12 First aid training

All persons working in offshore areas must have basic first aid skills.

Offshore assignment without first aid training is only permitted if participation in a first aid course was not possible due to the short-term nature of the assignment and a rescue assistant is present on site. The exception must be approved by the operational senior manager in coordination with the occupational safety specialist. At least 75% of all persons at the site must have first aid training at all times.

An **eight-hour** first aid refresher training course must be performed at least every **2 years**.

For employees of the Client who are designated as official first responders, the training must be repeated **annually**.

B.9.13 First aid organisation on the platform

If work is carried out on offshore platforms, at least 20% of personnel must always be present, and at least two "first-aiders offshore" must be present. Offshore first aid training shall include at least basic first aid training (9 lessons of 45 min each) and additional training of at least 20 lessons with practical exercises in the use of on-site first aid facilities. A refresher course with practical exercises of at least 8 teaching units is required at least **once a year**. In the event of life-threatening injuries or illnesses, the first-aider offshore can apply the extended emergency measures within the framework of their emergency competence and under the telemedical advice of an emergency physician on shore.

If work with an increased risk potential is carried out or if more than 25 persons are simultaneously on an offshore installation, an additional person with the qualification of a paramedic or comparable must be present on site.

In the first aid organisation on the platform, the planned work, the manpower on the platform and the deployment times must be taken into account. In addition, telemedical advice is provided by an emergency physician on land. Telemedicine devices transmit image, sound and vital data in real time to an emergency physician on shore.

B.10 Qualification and suitability of ship crews

The Contractor shall ensure that the personnel deployed, including the ship's command and control, not only have the appropriate certificates but also relevant and well-founded experience to be able to safely control the ship in any situation.

The Contractor and, in the latter instance, the skipper responsible on site shall ensure that these requirements are complied with.

The qualification certificates of the ship's crew as well as all relevant papers, permits, etc. concerning the ship and/or its work must always be carried.

B.11 Additional qualifications for platform crews

The qualifications for the Client's employees are described in the Client's manpower concept and training concept.

B.11.1 Crane work in offshore areas

B.11.1.1 Suitability for crane work

If work is performed with a crane, the person that operates the crane must provide written proof of a certificate, permit or licence to operate offshore cranes. Training for crane operators can be obtained through a course in which knowledge required for safe operation of cranes in accordance with DGUV Regulation 52 and the most important regulations and safety requirements pertaining to handling of cranes is provided.

The crane operator must also provide evidence of a suitability test in accordance with G 25 "Operation, control and monitoring work", a test for guiding a crane in offshore areas and an assignment in accordance with DGUV regulation 52 § 29. Moreover, applicable experience with operation of an offshore crane must be shown. In particular, crane work involving the lifting and setting down of loads on ships or the transport of persons may only be carried out by crane drivers who can demonstrate relevant experience in operating offshore cranes.

All persons attaching loads to the crane must provide proof of appropriate instruction. The evidence shall also be submitted to the Client prior to commencement of work.

B.11.1.2 Planning and performance of crane work in offshore areas

Only qualified personnel may participate in the planning and performance of crane work.

No work may be performed with the crane during the starting and landing procedures for a helicopter. The crane must be in a secured position so that it does not present a hazard for the helicopter.

The person responsible must provide the appropriate lifting equipment for the intended use, in particular taking into account sufficient load capacity, lifting height and reach or outreach.

It may be necessary for the crane operator to draw up a lifting plan (see [chapter A.16.13](#)) in consultation with the WS **before starting work**.

The following points must be particularly observed during crane work:

- Registration for passenger transport with an approved passenger access equipment at the responsible BG according to DGUV regulation 52 §36 (see regulations for the use of the passenger access equipment).
- Visual inspection of hoist and sling before each lift.
- Briefing before lifting operations and documentation of the results of the meeting.
- Lifting plan must be available

B.11.1.3 Load-bearing and slinging equipment

Additional requirements for offshore work:

- Secure the objects to be lifted against twisting and swinging with guide lines if necessary.
- Announcement of the max. wind speeds and max. significant wave heights for the cranes used in the operating manual.
- Communication test among all persons/stations involved.
- Day markings on crane tips/ends higher than 100 m above sea level in accordance with ICAO Annex 14; Volume 1, Chapter 6.
- Night marking/obstacle light must be present.
- Ensure radio communication and visual contact with the slinger and the load.

An emergency plan for sudden bad weather must be drawn up in writing and checked in advance if the crane work is to be carried out over a longer period (more than 4 hours).

The following must be observed when transporting persons with the crane:

- Personal carriers must be secured with a guide line against twisting and swinging by at least one person on deck so that no hazards arise. Personal carriers on lifting equipment may only be used if:
 - the manufacturer or supplier of the lifting equipment has intended this as intended use and the specifications of the intended use are compatible with the local operating conditions.
- or**
- the suitability of the lifting equipment for use under the local operating conditions has been verified by an expert opinion.
 - It must be ensured that persons in the personal carrier can be rescued safely and rapidly.

If several companies are involved in the use of a personal carrier, a coordinator shall be appointed by the OIM who shall ensure that all persons involved in the use of a personal carrier have been instructed on the handling and behaviour to be observed.

For the use of a personal carrier, a WS and a referee are ordered. It must be ensured that the operator of the lifting device is able to communicate with the persons located in the personal carrier. The person responsible for work must supervise the use of the personal carrier on site and monitor compliance with the operating instructions. The driver of the hoist decides on the use of the personal carrier according to the wind conditions.

It is mandatory to wear a life jacket when working in personal carriers above the water surface. If necessary, persons in the personal carrier fall arrest system must support against falls from a height and fasten to the appropriate points in the personal carrier.

Further measures must be taken into account in a risk assessment and defined in a detailed process description.

Personnel safety on crane (DGUV Information "Personnel safety on crane", Guide for operators 03/2018):

The prohibition of personnel safety on cranes is based on the manufacturer's operating instructions and the obligation of the operating company to use work equipment as intended.

Before a personal safety measure is carried out on the crane, the client must therefore prepare a special risk assessment (project/activity-related), which shows that this fall protection measure represents a safe, suitable and proportionate measure for the intended work situation with the lowest residual risk.

B.11.2 Rope access and positioning techniques (RAP)

In principle, the systems and work must be prepared in such a way that the application of RAP can be dispensed with. Should it nevertheless be necessary, for unforeseeable reasons, to work at hard-to-reach heights, a rescue concept shall be drawn up, taking into account all other possible access methods to the risk assessment, from which the safest method for access can be deduced. When carrying out such a risk assessment, experienced access technicians should be consulted

If the risk assessment shows that the application of the RAP is the safest method, the following principles must be observed:

- RAP work is carried out in accordance with the Safety and Work Guideline for Rope Access Technology issued by the Fach- und Interessenverband für Seilunterstützte Arbeitstechniken e.V. (German Association for Rope Access or FISAT).
- All employees must have valid FISAT certification and several years of experience in RAP.
- The certificates for qualifications may not be older than **12 months**.
- Supervisors must have a FISAT Level 3 Certificate Advanced Course.
- All equipment must be compatible, and type tested (CE marking)
- The ropes and slings used must be designed for at least 22kN.
- Without exception, a second backup must be used.
- Detailed work instructions, risk assessment and operating instructions must be drawn up and must include the procedure for rescuing an injured or incapacitated person.
- All anchor points must be checked again after interruptions to work (checklist). Proof of the audit must be submitted to the Client.
- All documents must **be** submitted to the Client **at least 4 weeks before the start of work**.
- The TRBS 2121-3, DGUV Rule 112-198, DGUV Rule 112-199 and DGUV Information 201-018 must be observed.

B.12 Proof of training

Proof of participation in the necessary safety training courses and instructions as well as occupational health precautions must be provided in good time **before the start of work** by submitting the certificates. The certificates must be submitted to the responsible person of the Client. If necessary, the latter will forward it to the occupational safety specialist of the Client for evaluation. The safety logbook must be presented to the respective transport company before the ship departs.

The safety passport must always be carried while staying in the offshore area.

B.13 Briefings in offshore areas

B.13.1 Safety briefings on offshore facilities

Prior to entering offshore facilities or ships, each person must participate in a safety briefing. The safety instructions must be carried out by the OIM or the responsible safety officer. Additional safety instructions are required if the local conditions and the hazard situation have changed or if incidents make this necessary.

The briefing must cover at least the following topics:

- General rules of safety and conduct
- Requirements and wearing of PPE
- Reference to prohibitions and orders
- Information on emergency plans and the locations of rescue and fire-fighting facilities and escape routes contained therein
- Hazardous areas and access bans
- Behaviour in and near electrical installations
- Behaviour during thunderstorms
- Behaviour in case of imminent collision of other road users with the platform
- Behaviour during crane work
- Environmental protection
- Waste management plan
- Responsibilities
- Working hours
- Reporting requirements and documentation
- Personnel reporting system
- Permit to Work System
- Measures for the protection of employees against accident and health hazards in accordance with the risk assessment in the valid version
- Contents of the Safety and Health Protection Plan (SaHe-Plan)
- Behaviour in case of fire alarm
- Behaviour in case of evacuation alarm.

B.13.2 Safety briefing for helicopter transfers

Before each flight (outward and return flight), a safety briefing with at least points must be carried out for all passengers:

- Approaching and behaviour in the danger areas of the helicopter
- Escape routes
- Behaviour in emergency situations
- Putting on and using the PPE.

Safety briefing for ship transfers or sojourn on ships

In the case of ship transfers to the offshore area or when staying on ships to carry out offshore work, a safety briefing for all passengers must be carried out by the ship's personnel.

The briefing must include at least the following points:

- Explanation of the procedure for the forthcoming transfer
- Behaviour in the vessel during transfer, crossover, ship movements and in an emergency
- Behaviour during the transfer, especially in bad weather, sea disturbance
- Expected weather and resulting special features
- Possible sources of danger and danger areas on the ship
- Note and explanation on the various sitting/standing areas or recreation areas in the vessel, if necessary division of the seats by the boat/boat captain according to suitability/strength of the persons in small vehicles
- Note and explanation on seating and standing options
- Advice to inform the crew immediately in the event of discomfort and uncertainty
- Behaviour during a man-overboard manoeuvre
- Behaviour in an emergency at sea

B.14 Training matrix for stays in offshore areas

In order to achieve the highest possible safety standard, all offshore personnel have completed appropriate safety courses and training in accordance with their tasks, in addition to the legally required instructions. The requirements of the training courses can be found in the following list as well as in the respective points of these SHE requirements:

	Repetition frequency [year]	Proof	Stay and maintenance work on the platform	Transfer by helicopter	Transfer by boat	Exception policies
Occupational medical suitability or precaution (Offshore Medical Certificate according to AWMF Guideline or equivalent as well as additional G-examinations according to the activity (e.g. G41))	A	B	x	x	x ¹⁾	x
Offshore safety basic training	4	Z, L	x	x	x	U
HUET with CA EBS	4	Z, L	x	x		U
First aid training	2	B	x	x	x	
Safety instruction in accordance with (ArbSchG) according to the planned work and hazards	1	B	x	x	x	x
Briefing on offshore UW platforms	1	B	x	x	x	x
Security briefing on the transfer ship	T	B			x	x
Briefing on facility-specific hazards	T	B	x			x
Helicopter boarding procedure	T	B	x	x		x
Working at heights certificate / PPE for fall protection	1	B				x ²⁾
Boat transfer / landing training	1	B				x ³⁾
Respiratory protection	1	B				x ⁴⁾
Fire protection assistants (ERT)	1	B				x ⁴⁾
Evacuation assistants (ERT)	1	B				x ⁴⁾
Offshore first responder	1	B				x ⁴⁾
Rescue assistant	—	Z				x ⁴⁾
	Repetition frequency [year]	Proof	Stay and maintenance work on the platform	Transfer by helicopter	Transfer by boat	Exception policies

HLO + HDA / HLA	—	Z				x ⁴⁾
Aircraft radio certificate for contact with helicopter crew	—	Z				x ⁴⁾
Radiotelephony certificate for the use of marine radios	—	Z				x ⁴⁾
Crane operator certificate	—	Z				x ⁴⁾
Crane guide certificate	—	Z				x ⁴⁾
Rescue boat operator certificate	2	Z				x ⁴⁾
Fast Rescue Boat Operator certificate	2	Z				x ⁴⁾
SF ₆ work certificate	—	Z				x ⁴⁾
Sampling expert course	—	Z				x ⁴⁾
Qualified electrician	—	Z				x ⁴⁾
OIM	—	Z				x ⁴⁾
Lift attendant	—	Z				x ⁴⁾
Expert scaffold erection	—	Z				x ⁴⁾
Training: free measurement of containers and narrow spaces	—	Z				x ⁴⁾
Ultrasound measurement training	—	Z				x ⁴⁾
Cook	—	Z				x ⁴⁾

Legend:

A: Age-dependent

B: Certification, signature list

Z: Certificate

L: Safety logbook

T: daily, e.g. before each transfer

U: Training

x¹⁾: Evidence according to STCW95 for ship's crew

x²⁾: when using PPE against falling when work under a risk of falling. (at least two persons)

x³⁾: when using Boat Landing

x⁴⁾: relevant proof of suitability must be provided with a current certificate/proof for persons carrying out this work

Note: For the use of free-fall lifeboats, lifeboat operators must be able to demonstrate training in free-fall lifeboats. The personnel must be specially instructed on the dangers and use of free-fall rescue boats.

B.15 Proof of briefings and trainings

The content and timing of briefings and instructions must be recorded and signed by the instructed person. The relevant evidence is to be kept in the Client's facilities, it's therefore recommended that each employee also carry a "safety pass" (e.g. a safety pass of the German Industrial Association of Oil and Gas Producers (Wirtschaftsverband Erdöl- und Erdgasgewinnung e.V.-WEG). Submit a copy of these records to the person nominated by the Client prior to starting work.

B.16 Emergency communication

In order to ensure a reliably functioning emergency response organisation, there must always be two independent communication channels between onshore and offshore. The communication channels must be functional in both directions and communication must be ensured directly on land, in the air (helicopters) and to ships (standby vessels, lifeboats, life rafts, etc.) and, if necessary, to other platforms.

B.17 Emergency protection organisation and emergency exercises

A functioning emergency protection organisation shall be set up by the Contractor or the shipowner for all offshore facilities of the Client. The emergency response organisation shall be described in the context of the relevant SHE plan (see [Appendix A III](#)).

The emergency response organisation shall consider at least the following contents:

- Emergency plans for the various emergency situations (see also exemplary list), including possible environmental scenarios
- Internal and external emergency numbers
- Phone numbers of internal and external contact persons
- Fire protection plans
- Escape and rescue plans
- Emergency Response Team (min. consisting of 1 operations manager and 4 team members)
- Description of roles and action plans (platform leader, emergency response team operations manager, fire safety assistants, evacuation assistants, respirator wearers, high-altitude rescuers, lifeboat operators, etc.)
- Regular safety trainings/drills/emergency exercises

Additionally, for the work on the platform:

- Onshore reporting office
- Standby rescue helicopter with emergency doctor
- Emergency doctor ashore for telephone and medical advice

In order to ensure the functioning of the emergency plans, emergency drills shall be carried out and repeated at regular intervals.

Emergency drills serve to check the effectiveness of measures in the area of emergency precautions and must be repeated at intervals to be determined according to the type and scope of the work, but **at least every 14 days**. To this end, a training plan must be drawn up, which defines the various necessary emergency exercises and their intervals in a binding manner. On the one hand, an emergency exercise is used to rehearse the effective and smooth running of an emergency plan and, on the other hand, to uncover previously undetected deficiencies.

Where necessary, staff training shall be provided (alarms, evacuations, first aid, fire-fighting, lifeboat exercises, man-overboard manoeuvres).

The results of an emergency exercise shall be documented. If necessary, measures must be derived from this and implemented. The risk assessments shall refer to appropriate emergency plans.

The emergency plans must be made known to all persons involved, the Client and the involved third parties (in particular public offices and authorities) **at least 4 weeks before the start of the work**.

Exemplary list of emergency plans for:

- Rescue of persons
- Persons on board
- Fire on occupied platform
- Helicopter accident
- Malfunction
- Total power failure
- Fuel leakage
- Malfunction of the system lighting
- Access by unauthorised persons
- Threat of attack
- Bad weather conditions, ice and storms

- Ship at wide berth on a collision course
- Drifting ship near the platform
- Supply ship collides with platform
- Use in platform-related accidents (ship accident, damage, helicopter crash etc.)

B.18 Requirements for certain types of work in offshore areas

B.18.1 Staying and working in mudflats

The mudflats are a part of the offshore area defined in the Client's SHE requirements and includes all areas in the German mudflats that dry out several times a day. Influenced by the tides, the water level drops by up to four metres at low tide, so that the seabed is restricted for kilometres.

Both the high tide and the low tide pose considerable dangers to persons in it, which must be taken into account before and during work. In order to be able to assess the specific local characteristics and dangers, the planning of the work in the mudflat area should be carried out in cooperation and coordination with local experts (state-certified mudflat guides, meteorologists, etc.).

In the following, possible hazards in the mudflats are identified and minimum requirements for consideration and implementation by the responsible organisational unit are presented.

B.18.2 Mudflat hazards

Pontoons, ships and the cable route in the mudflat area can be reached not only by boat, but also, at times of low tide, partly on foot. Mudflat construction sites should always be adequately lit and marked so that they are clearly visible to all persons and road users in all weather conditions, taking into account the obstruction of shipping and possible official requirements.

Hazards that occur during stays or walks in the mudflats are caused by, among other things:

- Unexpected sea fog
- Weather conditions, especially thunderstorms
- Wintertime (ice and snow)

- Onset of flood, also influenced by the wind
- Currents in the tideways
- Silt and excavation holes
- Mussel fields, in particular sea mussels
- partly sinking in the mudflats

The following minimum requirements must be implemented to reduce the above-mentioned hazards:

- Note the tide calendar and evaluate it on the basis of the weather forecast and situation
- Create and follow site specific tide calendars
- Allow sufficient time for the return journey
- Consideration of full tideways and lower lying mudflat areas
- Obtain and evaluate weather forecast
- Appropriate clothing
- Sun protection
- every employee working in the mudflats must always carry a fully functional compass with him or her
- no stay in the mudflats during thunderstorms
- Beware of icy surfaces
- no solo work in the mudflats (out of sight and call of colleagues)
- Permanent mobile phone and/or radio contact must be ensured
- Do not enter silt and excavation holes and inform or instruct persons on site accordingly. Markings and barriers must be removed from the mudflats before the tide sets in
- Do not enter mussel fields
- Wear PPE for worksites in mud flats (for example rubber boots in S3, mud overalls in S5)
- When darkness sets in, at night, threatening weather changes, thunderstorms, storms and/or (threatening) fog, no mudflat inspections or work should be performed out of sight of overlying vehicles.
- Minors under 18 years of age may only work in mudflat areas if at least two experienced adults are present with them.
- Work in the mudflats/mudflat inspection shall only be carried out in consultation with and with the prior consent of the mudflat supervisor/site manager.
- At least one person in the mudflat shall have a fully operational and correctly set clock to monitor the time available for inspection and/or work.

- The mudflat may only be entered on a pre-established route
- Head counts must be performed before and after work to ensure that all persons are present.
- At all times, at least one powerful flashlight or similar must be carried, with which people can draw attention to themselves under certain circumstances.

Note: For better orientation, GPS with routing and/or map functions would be conceivable to improve orientation in the mudflats and knowledge of possible hazards.

B.18.3 Transfer and transport of persons in offshore areas

The choice of means of transport depends on various factors, e.g. urgency, weather and sea weather forecast, the work to be performed, weight and type of tools or spare parts, number of persons and availability of transport means.

The helicopter is the primary means of transport used for reaching the platform. Access to the platform by boat landing is only allowed in exceptional cases. The operation must be taken into account accordingly in a risk assessment.

In general, transfers of persons must always be carried out during the day or in conditions similar to daylight and organised in such a way that as few trips/flights as possible are necessary. If a transfer must nevertheless be carried out in darkness and/or at dusk, a separate risk assessment should be prepared, and appropriate measures introduced. The skipper in charge, the helicopter pilot and the platform manager (OIM/NOM), in agreement with each other, grant permission for the transport of persons, especially for the transfer to the platform. They are at all times responsible for the decision and responsibility for the execution and termination of these operations.

B.18.4 Transfer via winches from the helicopter

Access to the offshore platform and ships by winches from the helicopter must be avoided as a matter of principle. An exception is the winching of injured persons in emergency situations.

An emergency is any unforeseen situation in which there is an imminent danger to property or the physical integrity of people. If access via boat landing is not possible, the following scenarios may arise:

- Failure of helicopter deck after storm (e.g. net)
- Failure of helicopter deck fire protection system (technical emergency)

- Failure of helicopter deck due to maintenance work (scaffolding, periodic inspections etc.)
- The Client's employees on OWP platforms without helicopter deck for damage assessment after failure due to possible Client fault
- Flying in of medical personnel if an accident victim cannot be transported

The prerequisite for the winch's decision is compliance with the SOP (Standard Operation Procedure) of the helicopter service provider, e.g. trained personnel are employed for this purpose. Emergency winch operating areas are used to access or evacuate the platform by helicopter when the helicopter deck is blocked or locked. These are set up at places on the platform that are easily accessible by personnel (even with injured persons) and offer the helicopter as much obstacle clearance as possible.

B.18.5 Transport of persons in personal cage lifts

The transport of persons from the ship to offshore platforms or to other offshore structures and floating units by means of a personal cage lift is only permitted in exceptional cases. The minimum standard for this is either the FROG-3 Crew Transfer Device, FROG-6 Crew Transfer Device or the TORO Transfer Capsule. The use of different types (CE certification must be available). of personal cage lifts is checked by the Client before use and, if necessary, recognised and approved.

A detailed risk assessment, workflow description and operating instructions must be prepared for the transport of persons by means of personal cage lifts, specifying under which conditions the transport is to be carried out, when the transport is to be stopped (weather limits) and which safety and emergency measures are to be taken. A sufficiently large area must be provided for the lift to be lifted and set down, which must be specified by the manufacturer in the instruction handbook for the various areas and conditions of use. The workflow description must be coordinated and approved with the Area Manager and the Occupational Safety Specialist of the Client and, if applicable, the OIM/NOM.

A radio connection and visual contact (via the second person/or camera) with the ship/crane driver/instructor must be ensured.

B.18.6 Handling winches, ropes, anchor wires

The handling of winches, ropes, anchor wires, hawsers, etc. is to be regarded as a high-risk factor. The danger zones must be clearly defined in the instructions to be carried out at short notice for this purpose. Unauthorised persons must not be present in the danger zones.

Winches, deflection blocks, anchor spills (rotating device for hauling in hawser, wires and anchor chains)

shall be installed on board floating units in such a way that the danger area is visible and closed off. All hawsers, wires and deflection blocks must be installed in such a way that they cannot be knocked. A corresponding fairlead must be installed before work begins. Wires, hawsers, etc. which lie in the traffic route, in particular the escape route, must be built over.

Ropes and wires, which have to be moved by hand, must be secured in such a way as to ensure controlled leakage. Noise should be avoided. The number of personnel to be deployed must be adapted to the length and weight of the hawser or wire. There must be sufficient space for the employees to be able to leave the danger area quickly.

All persons on board must be instructed that they must never step into or onto loops, slings or rings of ropes, wires or hawsers.

The holding ropes must be guided freely in the hand and, if possible, redirected at suitable points.

B.18.7 Working alone

Working alone is understood to mean when employees work alone without visual or telephone contact to other employees. Working alone on hazardous activities is forbidden. For other activities, a risk assessment must be submitted describing measures to ensure visual and telephone contact with colleagues in other ways, e.g. camera or radio.

B.19 Diving work

Diving work presents an increased security risk. Before carrying out diving work, it must always be checked whether diving can be carried out with technical equipment and whether the use of divers can be dispensed with.

All diving work may only be carried out by divers if a technical solution ROV/reconstruction of technical equipment or similar is not feasible or not feasible within a reasonable period of time. After agreement between the parties involved and the determination that diving work can be carried out, the responsible operations manager on site decides on the performance of the diving work in accordance with the regulations, procedures and conditions established on site.

If diving work cannot be completely eliminated in the planning phase for underwater work, e.g. recurring inspections, the diving work must be notified to the Client in advance of the work.

A combined solution of underwater work (ROV and diver) is preferable in order to minimise the use of divers. SIMOPS work (diver and ROV) is subject to a separate risk assessment but must be avoided as a matter of principle.

All Contractors must carry out or have carried out diving work in accordance with DGUV regulation 40 and the DNV GL SE Guide on Offshore Diving Work.

The number of divers to be used depends on the regulations, the risk assessment and the equipment used.

A diver matrix shall be established for the personnel deployed, the content of which shall consist of the following points:

- Acquisition of diving license Place and date
- Dive service book template and dives in the last 2 years
- Current medical certificate

B.19.1 Diving equipment

The diving equipment requirements and site installation are subject to DGUV Regulation 40, DNV GL SE's Guide to Offshore Diving Work and the British Offshore Industry Standards IMCA DO14, IMCA DO18 and IMCA DO23 and all other IMCA approved procedures.

Emergency plan and rescue chain must be posted on site. The employees involved shall be instructed in the application of emergency measures and procedures.

If necessary, the Client's occupational safety specialist agrees with the responsible authorities whether the working procedures and the suitability of the equipment used as well as the execution of the diving work for the workplace are given.

If there are deviations, the planned diving work must be coordinated with the responsible authority for occupational safety and health and, if necessary, the employers' liability insurance association at an early stage. The Client shall be involved in this coordination. In principle, all documents relating to diving work must be submitted to the Client at **least 4 weeks before the start of work** and must also be registered with the wind farm operators and coordinated in terms of deadlines.

All equipment installed on a diving vessel must be tested and documented. The Client reserves the right to inspect any diving vessel before its operation; operation without prior inspection may only be done after consultation.

The following documents must be made available at **least 4 weeks before the start of the assignment**:

- Diving Method Statement (DP Vessel, RIB, Anchor Vessel)
- Risk Assessment (DP Vessel, RIB, Anchor Vessel)
- Diving equipment
- Preparation to dive
- Pre-dive checks
- Umbilical management
- Recovery of the diver
- Decompression tables - German DGUV Regulation 40
- Recovery of an injured or unconscious diver (separate diving procedure)
- Diver rescue & evacuation procedure
- Secondary power test
- Recovery of basket using secondary hydraulic
- Team size
- Vessel
- Dive Control Container certificate
- Deck Decompression Chamber certificate
- LARS certificate
- Diver qualification matrix
- Diver umbilical extension procedure (so-called Golden Gate)
- Emergency Response Plan for the project

Diving records and reports must be prepared after each dive. All diving work must be performed with a helmet camera. The underwater recordings with audio must be made available to the Client. In the event that a dive is performed with only one LARS system, a diver rescue system for rescuing an injured diver must be kept ready at all times.

At the beginning of diving work and when diving personnel are switched out, a rescue and recovery dive must be performed.

B.19.2 RIB dives

Dives from RIBs may only be performed during daylight and with moderate weather conditions, clear visibility and within sight of the mothership. In addition to the general requirements for diving work, the following conditions for diving work from an inflatable boat must be observed:

- The inflatable boat used must at least provide space for divers, workers and working materials.
- The propulsion system must have propeller protection.
- Safe, controlled entry and exit of the diver must be ensured.
- The situation of rescue and salvage for a diver unable to work must be considered.
- A man overboard net or similar equipment must be present
- A Fast Rescue, or at least a Rescue boat, must be ready for use on the mother ship.
- A guard must be on the bridge of the mother ship during diving work. There must be constant communication between the guard and the inflatable boat.

B.20 Working over water

The general legal provisions according to BaustellV Annex II as well as DGUV-V 1/§ 8 and DGUV-R A1/2.7.1 apply when working with the risk of falling. The scaffolding must be inspected daily for damage, in particular after a storm, or other unforeseen stress.

- Work on the outside of the platform must always be carried out in daylight or daylight equivalent lighting and only under suitable weather conditions.
- Work over open water may generally only be carried out in daylight and under suitable weather conditions. The weather conditions result from the weather restrictions of the rescue equipment used, the Fast Rescue Boat of the platform or the safety ship.

When erecting scaffolding, suitable PPE must be worn in accordance with the valid risk assessment of the executing company. A safety harness must always be worn. A survival suit and a life jacket can be worn additionally. When erecting scaffolding or working with an increased risk of falling, a safety ship must always be provided.

When working on approved scaffolding with sufficient side protection, life jackets with safety harnesses or survival suits can be dispensed with unless the risk assessment of the company carrying out the work places higher requirements.

Transfer to and from the platform may not be done at night as a matter of principle. Should the helicopter deck and the boat landing nevertheless be approached in the dark (e.g. in the event of evacuation), adequate lighting of the helicopter deck or the boat landing, e.g. with floodlights, must be ensured. It must be possible to remotely control the lighting used.

B.21 Use of ships

Any ships used must meet legal and contractual requirements. Persons who do not belong to the ship's crew or to the installation personnel (for example construction supervisors) may not actively participate or be involved in the work. All hazard areas are to be labelled through suitable deck management. The hazard areas must be communicated in the briefing. Should personnel (e.g. construction supervisors, Client's occupational safety specialist, DNV/GL etc.) have an important reason to enter endangered areas, this person must be accompanied by a person involved in the work

Before use, all national and international ship documents, vehicle-specific emergency plans and hazard assessments for plannable work as well as the following ship certificates for each of the named vehicles must be submitted to the Client's MOC:

- Certificate of Class
- Safety Construction Certificate
- Safety Equipment Certificate & Record
- Safety Radio Certificate & Record
- Minimum Safe Manning Document/Certificate
- International Tonnage Certificate
- Vessel Specifications.

Principles applicable to all ships, vessels and crews:

- If the MOB is at risk, an automatic life jacket with PLB must always be worn.
- All ships must be equipped with an EPIRB or the like.
- Each operation must be filed and closed with the Client's MOC.
- THE AIS must always be switched on.
- Life rafts shall be positioned so as to be capable of releasing when capsized.
- Each ship or vessel must have an AED.

B.22 Special requirements for the operation of ships registered under a foreign flag

The special requirements for the operation of ships registered under a foreign flag are:

- Ships engaged in coastal shipping within the meaning of the Ordinance on Coastal Shipping of 5 July 2002 (BGBl. I p. 2555) or are used commercially on shipping lanes or in the area of the German territorial

sea bordering seawards, must meet the same requirements in accordance with the Ship Safety Act as ships of the same type and use which are operated under the German flag (principle of equivalence).

- Ships of EU member states must be operated, equipped and built in accordance with the applicable international laws and regulations (see Coastal Shipping Ordinance).
- Ships entering the safety zones of artificial installations must comply with the internationally recognised shipping standards (see Convention on the Law of the Sea).
- In this context, international requirements and laws are those of the IMO. The Maritime Safety Regulation is based on the requirements of the IMO and refers to them in the current text.

B.23 Operational readiness and suitability of ships

Before each voyage, the skipper shall check and ensure the operational readiness of the vessel and its equipment, in particular radio and emergency equipment. If equipment is missing or if it is in a deficient or defective condition, appropriate measures must be taken to remedy this condition. If a measure deviating from the intended requirements must be taken, these must be suitable to compensate for the condition until the correct remedial action has been taken. A separate risk assessment (cf. [chapter A.9](#) and [B.8](#)) must also be prepared for this case.

If the condition cannot be adequately rectified, the vessel may not be used. Deviations from official requirements shall be reported to the authority, the Client and the Contractor's responsible person and mutually agreed upon.

The Client reserves the right to inspect or have inspected all vessels used before or during the mobilization phase. If security concerns arise during the operation, the Client may initiate an investigation. In addition to suitability and safety aspects, technical details and relevant ship documentation are reviewed.

B.24 Use of temporary living quarters (TLQs) on offshore platforms

Additional living containers can be installed on the main deck. To increase the POB (Persons On Board), the evacuation concept and the rescue equipment must be adapted according to the number of persons. It must be ensured that there is always a place for each person in the lifeboat (or comparable).

The design of the accommodation is based on the technical rules for workplaces and the NORSOK Directive [XXVII]. The fresh water and waste water systems of the offshore platform and the air conditioning for the accommodation must be able to meet demands for a full crew for 21 days. It must also be ensured that no waste water is discharged without the approval of the competent authority.

The installation of TLQ must be notified in advance to the responsible authorities stating the duration of use.

B.25 Use of helicopters

Only helicopters which meet the requirements of the approval of the helicopter deck (according to the Client's requirements TS-TBA-102), as well as the Client's requirements in the flight operation manual and other specifications (Annex to the flight operation manual) with minimum requirements for the helicopters used may be used. International guidelines such as ICAO and JAR OPS 3 and the German regulations must be taken into account.

The procedures agreed and approved with the authorities for taking off and landing on the helicopter deck are described in a flight operations manual or a provisional helicopter operating licence and must be observed by all users of the helicopter deck.

Particular care must be taken to ensure that a time interval of at least 15 minutes between two flights is observed, although for organisational reasons, the goal should be 30 minutes. The safety interval also applies to helicopter decks of mother-daughter platforms, jack-up barge or ships as well as to other platforms within the 500 m safety zone.

B.25.1 Requirements for the helicopter company

For flight operations over sea in accordance with the standard mentioned above, the helicopter operator must have the following official approval in their AOC (Air Operator Certificate):

- Dangerous goods (transport of dangerous goods)
- Helicopter operation on the open sea
- Operation according to IFR for the helicopter sample
- Helicopter winch operation over land and the open sea (if winch operation is planned)

B.25.2 Requirements for the helicopter crew

According to the Client's requirements, the minimum crew for flights over sea always consists of two pilots who both meet the requirements of JAR-OPS3 for flights according to IFR.

If helicopter winch operation is planned, the minimum requirements for helicopter crew (pilot and hoist operator) according to JAR-OPS 3.005(h) must also be fulfilled. These include, but are not limited to:

- Hours as a responsible pilot
- 50 winch cycles over the open sea (if winch operation is planned)
- Proof of training and examination for the execution of winch operation (if winch operation is planned)

In addition, all crew members must be in possession of a valid Sea Survival certificate, including an Underwater Exit Trainer (HUET).

B.26 Use of jack-up barges

For major maintenance phases, it may be necessary to have more persons on the offshore platform than the maximum number of persons allowed on the platform. In order to create additional accommodation facilities that enable a quick and safe change of personnel on site, the use of a temporary jack-up barge, which is connected to the platform by means of a bridge, is an ideal solution.

The jack-up barge with the bridge must basically meet the requirements of the relevant points of the protection and safety concept and those of the operating manual and must be certified and approved by a recognised classification society (e.g. DNV/GL). Since the bridge connection is the first escape route, it must be at least 1 metre wide if the platform is manned by up to 20 persons and at least 1.2 metres wide if the platform is manned by more than 20 persons and up to 200 persons.

The platform itself must always have an independent second escape route by sea.

For the use of such a jack-up barge, a permit must be obtained from the competent authorities and a separate SHE plan drawn up which, in addition to the responsibilities and responsibilities, must take into account the following points, among others:

- Coordination and safe execution of helicopter operations
- Access control between platforms (access control and personnel change)
- Coordination of crane work
- Coordination of the various emergency protection organisations (emergency plans and escape and rescue concept)
- Tractor work (pulling and anchoring work)
- Positioning of the jack-up barge, including the supporting legs and, if applicable, anchors (the anchor plan and position of the supporting legs must be communicated to the Client in good time)

- Beaconing and lighting concept
- Seabed analysis (geotechnical site investigation):
- Stability
- sustainable changes in the lake bottom
- existing objects such as cables and wires
- Existing deposits
- Risk management, e.g. for lifting processes:
- Swimming restrictions
- Redundancy of drive or positioning power and tow ropes
- Weather forecast
- Protection of the stand construction
- Approach and positioning next to the offshore platform
- Protection of submarine installations
- Traffic and collision risk management
- Communication and supply of the offshore platform
- Interaction between the platforms (dynamics and own movement)

If equipment is missing, or if it is in a deficient or defective condition, appropriate measures must be taken to remedy this condition. If a measure deviating from the intended requirements must be taken, these must be suitable to compensate for the condition until the correct remedial action has been taken. A separate risk assessment must also be prepared for this case. If the defect cannot be adequately remedied, the vessel may not be used.

Deviations from official requirements must be reported to the MOC and the logistics manager and agreed upon jointly. Daily reports shall be prepared for all ships in accordance with the specifications. The following points at minimum should be documented in the daily report:

- Number and names of persons
- Hours worked
- Work performed
- Hazardous work performed
- Work permits issued
- Number of accidents
- Number of minor incidents (including environmental incidents)
- Number of near misses
- First aid treatments provided.

The daily ship reports shall be sent to the MOC no **later than the following day**.

B.27 Environmental protection

B.27.1 Device inventory list

As early as in the planning phase, data sheets with exact type designation, year of manufacture, details of ground pressure and technical description of all machines, devices and vehicles used must be submitted to the Client.

When using hydraulic systems, DIN 20066-2002-10 must be observed. Hydraulic hoses and their connections may not be **older than 6 years**.

This also applies to all watercraft, wheeled and tracked vehicles, generators, cable winches, motor-driven drainage pumps, crane systems, storage containers for water-polluting substances as well as all equipment in which water-polluting substances are used. In the case of ships, the depth shall also be declared laden and unladen. Tracked vehicles used in the mud flats must not exceed the maximum permissible ground pressure of 230 g/cm².

It should also be examined, inter alia:

- The use of rapidly biodegradable hydraulic/engine or transmission oils and biofuels for the plants, machines and equipment used.
- The use of rapidly biodegradable hydraulic oils and the use of biofuels in the immediate vicinity or in environmentally sensitive areas such as water protection areas, nature reserves etc.
- The use of, according to ISO 15380, "Lubricants, industrial oils and related products (Class L) - Family H (Hydraulic systems) - Requirements for categories HETG, HEPG, HEES and HEPR (ISO 15380:2011)".

B.27.2 Water protection/zero discharge concept

For all vessels that are used, a "Fit-For-Purpose" certificate or an equivalent certificate from a classification society must be submitted to the Client at **least 14 working days prior to the start of work**.

In order to prevent the discharge of polluted water, the application of certain technical measures on the ships shall be examined:

- The installations on deck which use or contain substances which are potentially hazardous to the environment or water must be surrounded by a coaming edge or oil sump of at least 10 cm.

It must be ensured that not only the motors or gearboxes are protected, but also the hydraulic and other supply lines with substances hazardous to the environment or water (e.g. fuel).

- Technical installations may only be operated within these protected coaming zones. No installations that use or contain substances hazardous to water may be located outside the coaming edge protection.
- All potential outlets must be within the protection zone.

In order to ensure compliance with the zero-discharge principle for the deck and all installations, a protection and cleaning concept shall be drawn up which shall be described in detail in the relevant SHE plans.

The following must be taken into account in the concept and checked during the regular inspections:

- Proper and appropriate maintenance and cleaning intervals for all equipment and machinery as well as the deck
- Adjustment of intervals (monthly) according to extreme operating conditions
- Inspection of all technical installations with connecting pipes and hoses (at least once per week)
- General condition
- Compliance with inspection intervals
- Leaks (every working day)
- Damage (every working day)
- Condition of the coaming edges and collection containers (weekly and additionally after strong weather events)
- Checking the integrity of the coaming edge
- leak-tightness must be checked in the case of temporarily installed coaming edges
- Check the deck for contamination by oils, grease, fuels, etc. (working day)
- Presence of prescribed storage of binders (including instructions for use)
- Proper storage and leak-tightness of waste bins
- Emergency plan for substance leakage

The regular inspections and monitoring shall be recorded. In addition, a fuel register with a fuel diary must be kept in which all existing and used fuels as well as records of fuel leaks are documented.

Records of substance leaks shall include the following minimum information:

- Place, date and reason for leakage
- Information on the leaked substance (name, safety data sheet, CAS registration number, WGK information, quantity leaked, location of use of the substance used)

- Countermeasures initiated (e.g. recording equipment used, storage of contaminated input materials, duration, personnel involved, reports of the event, cleaning, instruction, etc.)
- Disposal (including certificates)
- If necessary, record in the oil diary.

All damaging events with pollutant leakage into the environment as well as environmentally relevant unsafe conditions/near-events, intentional or unintentional, must be reported immediately to the Client (the MOC) and the responsible authorities in accordance with the emergency plan for substance leakage (see chapter [B.27.4](#)).

B.27.3 Route and berth concept for all vehicles used within the Wadden Sea National Park

For work that takes place within the Wadden Sea National Parks, a route and berthing concept for all vehicles used, including the ships, must be submitted as early as in the planning phase. The route and berth concept shall indicate the planned routes, berths and anchorages and a timetable indicating the frequency and timing of vehicle movements on the routes.

The concept must take into account the fact that in the Wadden Sea National Park, ship and dredger movements and anchoring are only permitted within coordinated areas and ship traffic only if water levels are sufficient.

The concept shall provide detailed information on the use of anchors. In principle, it must be taken into account that any work and ship movements constitute a violation of the nature conservation laws relating to the Wadden Sea and that such work and ship movements can only be approved by the approval authority.

The route and berth concept must be submitted to the Client in good time so that it can be coordinated with the nature conservation project support and the responsible authorities and, if necessary, changes can be made. Compliance with the agreed route and berthing plan must be ensured. All persons concerned must be adequately informed about the contents and the implementation of the concept.

The Contractor shall be obliged to comply with all applicable statutory provisions and official requirements for the protection of nature and the environment during the provision of services, in particular in the area of the Wadden Sea National Park. All work must be carried out in such a way that the Wadden Sea habitat is impacted in the least possible way (e.g. through the exclusive use of rapidly biodegradable hydraulic and transmission oils and biofuels, foil protection for environmentally relevant areas of application, sufficient absorbents for environmentally hazardous substances, mudguards against splashing losses, protection of

hydraulic connections, etc.).

In the area of the Wadden Sea National Park, in particular, no wastewater (oily water, black and grey water, wastewater, water from purification processes, etc.) may be discharged or any type of waste (e.g. solid waste, liquid waste, food leftovers, industrial waste, hazardous waste, etc.) disposed of.

The following principle applies:

'Anything that is brought into the Wattenmeer National Park must also be taken out of the Wattenmeer National Park'

B.27.4 Emergency response concept for substance leakage

Emergency plans for leaks/accidents with pollutant leakage, in particular with hazardous substances and water-polluting substances, must be drawn up prior to commencement of work and submitted to the Client.

The emergency response concept shall take into account at least the following points:

- Regular updating and announcement of the concept and the emergency plans to the crew.
- List, including all contact data for responsible and relevant persons, institutions to be involved (Maritime Situation Centre/Cuxhaven General Average Command, Water Police, Port Control / Port Authority etc.).
- This list shall be checked and regularly updated by the OIM or the designated person.
- Emergency communication matrix, including local contact points.
- Immediate actions.
- Information on binding agents, determination of suitable binding agents (spill equipment/spill kits/SOPEP equipment).
- Process flows/work instructions for proper implementation of the emergency plan, availability of information, maintenance and testing of binder equipment/spill kits, staff training, etc.
- Identification of all types and quantities of oil, fuels and other relevant pollutants used on site (platform or on board ships and jack-up barges) and where they are located. The type and place of storage shall be defined in accordance with the legal provisions.
- All relevant information (safety data sheets) for these substances must be available on site.
- Instruction of all persons on the handling of these hazardous substances, safe handling and precautionary measures.
- Verification and schedule control via instructions.
- General emergency plan for oil spill and specific emergency plans for each ship/jack-up barge, platform.

With the following information:

- Person responsible for hazardous substances.
- Onshore contact person who can be contacted in an emergency.
- Measures (operational, organisational, technical) and standards to prevent pollution of the sea (including the Wadden Sea).
- Location of the binding agents/spill kits.
- Determination, place of posting for emergency plan

The following also applies to ships and the platform:

- Action/process description for refuelling the platform and specifics for each ship (including emergency shutdown details, relevant valves, duties of each crew member, etc.). Relevant drawings of the platform and/or vessels shall be attached.
- Determination of which binding agents/spill kits (e.g. oil snake, mats, sawdust, antistatic brooms and shovels, bags, gloves, protective goggles, oil-resistant collection containers etc.) can be used and must be kept on site. Suitable spill equipment must always be available in sufficient quantities on site/on the platform and/or on ships. The storage location and contents must be marked accordingly. If the storage takes place on site in several suitable places, it shall be numbered and clearly indicated in the plan.
- Instructions for using the spill equipment, including how to use it, as well as proper collection and disposal.
- Regular exercises with the staff on site regarding the release of water-polluting substances.

In the event of damage, immediate measures must be taken to limit and eliminate the damage.

The Client must be informed about the MOC by telephone.

B.27.5 Supply of fuel and operating materials to the platform

Procedural instructions for supplying the platform with fuels and consumables (e.g. oil for transformers, fuels) shall be drawn up describing the safe course of the respective supply. A procedure shall be established for the platform and specifically for each ship, including information on emergency shutdown, relevant valves, annexes with relevant drawings as appropriate.

The instruction must be agreed upon in good time with the Client, with the involvement of the SHE representative and the occupational safety specialist. An emergency plan for the leakage of diesel during refuelling must be drawn up in accordance with MARPOL. The emergency plan shall be coordinated in advance with the responsible authorities and offices as well as with the OIM in the operating phase and the Client's SHE representatives.

The Contractor shall individually check the coordination of measures, emergency plans etc. with the responsible insurance company and its requirements in order to ensure full and adequate insurance cover at all times.

B.27.6 Handling and use of radioactive substances

Permission from the relevant authority must be obtained for all work performed with radioactive materials. Transport to the platform must be reported to the Client **4 weeks in advance**.

The radiation protection supervisor is the entrepreneur who hands over the organization of the implementation of radiation protection to the radiation protection commissioner by appointment. The radiation protection commissioner shall present the certificate of competence for radiation protection commissioners handling enclosed radioactive materials (qualification group 2.3). He advises and supports the facility operator regarding these questions. The radiation protection commissioner has the authority to issue operational directives.

Before starting work with radioactive materials, safety areas must be closed off and marked. In addition, it should be noted that these areas may also be valid for floors above and below.

B.27.7 Waste management

In addition to the requirements listed in chapter A.19.2 , the following regulations apply to the offshore area.

Any waste generated in offshore areas (for example on offshore platforms or on floating units) must be properly disposed of as in Germany. Excluded from the obligation to dispose of these in Germany are wastes on ships which do not arise in the course of the commissioned service by the Client (e.g. during maintenance work or kitchen wastes).

In addition to the evidence to be handed over specified in Chapter A.19.2, the extracts from the garbage book on "Records of the introduction, discharge and disposal of garbage" must also be handed over to the persons named by the Client without being requested to do so. Unpermitted introduction or diversion of waste / wastewater into the sea is not permitted. Corresponding permits must also be submitted to the Client **prior to the commencement of work** without being requested to do so.

According to the work to be carried out, sufficiently dimensioned, suitable, closed containers suitable for offshore use must be used and made available in adequate numbers. When determining the dimensions and number of containers for holding the waste until it is transported back to land, an additional reserve capacity must be calculated for potential bad weather periods in which no ship transfer is possible.

Each Contractor is required to report to the Client and immediately recover any objects which have fallen into the water or devices or device parts which have been lost in the water. Even objects that are found at a later time which can be demonstrably attributed must be recovered immediately by whoever caused the loss. The search and recovery procedure must be coordinated with the Client and the approving authority prior to execution.

Appendix B I Checklist of personnel-related requirements for accessing offshore areas

For the following points (if applicable), a copy of the evidence must be submitted to the Client **at least one week before the start of work**.

1. Occupational medical aptitude tests and precautions according to chapter B.9.2	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
2. First aid training inc. defibrillator (basic course + refresher courses, every two years)	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
3. Offshore training - basic course (BOSIET – Basic Offshore Safety Induction & Emergency Training or STCW ⁹⁵ - approved Basic Safety Training or the equivalent)	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
4. Fire suppression training (practical handling of fire extinguishers and behaviour in case of fire)	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
5. Escape from a sinking helicopter – for transfer by helicopter (HUET – Helicopter Underwater Escape Training)	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
6. Hazard assessments for all activities (according to ArbSchG, GefStoffV, BetrSichV)	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
7. Training At least once per year according to ArbSchG and DGUV regulation 1		
Activity-related (for all activities)	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
Handling of hazardous substances	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
Use and handling of PPE	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
Handling of rescue equipment (service personnel)	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
Operating instructions	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
Hazard assessments	Yes	<input type="checkbox"/>

	No <input type="checkbox"/>
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8. Briefings

(General behaviour and behaviour in emergency situations)

Helicopter	Yes <input type="checkbox"/>
	No <input type="checkbox"/>
Ship	Yes <input type="checkbox"/>
	No <input type="checkbox"/>
Platform	Yes <input type="checkbox"/>
	No <input type="checkbox"/>
Work / construction site	Yes <input type="checkbox"/>
	No <input type="checkbox"/>

 Location, Date

 Signature & stamp of the Contractor

Appendix B II Policies for accessing offshore areas for those who have not participated in practical exercises

For persons who have not participated in the practical exercises of an offshore training course, staying in the offshore area is **only possible in special exceptional cases** and must be **applied for in writing** by the Contractor in agreement with the Client's Senior Manager. The letter of application must be accompanied by a **written declaration of consent from the respective supervisor**. In addition, a **risk assessment (RA)** must be drawn up **for this operation** , in which special measures must be specified (e.g. instruction on the correct behaviour in emergencies, behaviour in the event of helicopter crashes, behaviour in cold water, operation of hand-held fire extinguishers). This risk assessment must be submitted together with the existing medical certificates for **occupational medical aptitude tests** along with the application letter.

The **Contractor's written permission** must be obtained for the transfer and access to the offshore platform.

1. Checklist for access in special cases	
Is it a 1-day use (without planned overnight stay)?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Risk assessment for this application with separate measures available?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Proof of occupational health suitability?	Yes <input type="checkbox"/> No <input type="checkbox"/>
2. Training	
Activity-related training (for all activities)	Yes <input type="checkbox"/> No <input type="checkbox"/>
Behaviour in a sinking helicopter	Yes <input type="checkbox"/> No <input type="checkbox"/>
Use and handling of PPE	Yes <input type="checkbox"/> No <input type="checkbox"/>
Behaviour in distress at sea	Yes <input type="checkbox"/> No <input type="checkbox"/>
3. Briefings (General behaviour and behaviour in emergency situations)	

Helicopter	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Ship	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Platform	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Work / construction site	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4. Written permission for the assignment (issued by the Contractor in consultation with Area Managers and the Client's senior manager)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
5. Declaration of understanding of the respective supervisor?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

Location, Date

Signature & stamp of the Contractor

Appendix B III Example list of aspects to be considered for the transfer of persons by ship

For the transfer of persons by ship, the following aspects at minimum must be taken into account in planning and execution, preparation of hazard assessments and work instructions, procedures, etc. (point A.10):

- Need for the transfer and possible alternatives
- Frequency of the transfer and number of affected persons
- Place or area of the transfer (e.g. near the coast, offshore, distance to the coast, time until arrival of rescue forces, availability of rescue forces, hazards - local and general, hazards from shipping traffic, currents etc.)
- Current and forecast weather, swell and visibility conditions (wind direction and speed, gusts; swell in strength, height and direction as well as swell; tide; current in strength and direction; rain, storm, ice, thunderstorm; fog/threatening fog). See also point B.4 of this Guideline.
- Ship stability and movements during the approach and during the transfer, taking into account the current loading condition and given weather/sea conditions
- Manoeuvrability of the ship/helicopter and its limits, especially with regard to the current loading and weather situation
- Ship type, equipment and condition of the ship or helicopter, in particular safety equipment
- Requirements and stresses on affected persons, especially during transport and transfer, taking into account sea state and resulting ship movement, wind and influence of helicopter rotors, etc.
- Qualification, training and briefing of all relevant persons (ship or helicopter crew and passengers)
- Behaviour of sea swell/waves and currents on the platform foundation, especially around landing or transfer areas; analogous: Turbulence, influence of wind on the helicopter deck etc., documentation in a current risk assessment.
- Illumination of lighting areas from the helicopter and on the platform and ship
- Hazard of slipping on ladders, decks etc. due to rain, ice, etc.
- Availability, condition and equipment of transfer equipment
- Available and condition of lifting equipment
- Modes of communication and communication signals between ship and ship / ship and platform etc.; consideration of alternate modes of communication and unified call and hand signs

- Communication on the ship and in the helicopter
- Existence of parallel activities, and possible influence by them
- Rescue chains, emergency plans / measures including distribution / determination of responsibilities
- Availability of rescue equipment and support of third parties as well as support from third parties in emergency situations (also third parties in their own emergency situations)
- Description of the procedure for carrying out the transfer and crossings, including determination of responsibilities and consideration of possible failures or emergencies, such as person over board/in the water.

Suitability of the landing and climb over areas:

- Access routes, ladders, walkways etc. must be fixed and securely attached in accordance with the requirements of BG Verkehr and SOLAS.
- Embarkation ladders and pilot ladders must comply with SOLAS and BG traffic regulations in terms of construction and deployment.
- The areas must be clearly marked on deck and from the outside and must have a designated opening in the railing/ship's side etc. which can be safely opened and closed at any time.
- Handles and brackets must be fitted accordingly.
- It must be possible to illuminate the area sufficiently at all times, both in normal power operation and in emergency power operation. For reasons of redundancy, the lighting should be installed in all vessels etc. involved. The areas must be clean and free of obstacles, hazards etc. If, for example, a small feeder vessel cannot provide this lighting, it must be taken over by the other vessel/platform alone and recorded in a risk assessment.
- Anti-slip materials, paints etc. must be used.
- Special caution must be exercised in the event of ice, snowfall and rain. Hazards caused by icy ladders or paths must be eliminated extensively and over a long period of time before climbing over and recorded in a separate risk assessment.
- Cleats, bollards etc. must be available at various suitable positions so that ships can moor safely in any situation.
- There must always be second landing area available as an alternative. This may not be possible or necessary for stationary platforms and small vehicles but must be checked by the Contractor in good time and in detail, and notified to the Client.

Area equipment:

- At least one lifebelt shall be provided in transition areas and shall be readily accessible.
- Appropriate equipment for fetching or flying objects of small size and weight (bags, etc.) should be available for climbing over in the areas. Possible equipment may include:
 - a line of adequate length,
 - Material and load capacity,
 - a net with appropriate mesh width,
 - Load capacity and mounting devices etc.
- If necessary, the collection and transportation of objects must be considered in detail in a risk assessment.
- If a crane is used to take over objects, points B.12, B.15, B.19 must be observed.
- The transfer of persons with the crane is only permitted in exceptional cases and exclusively by means of a personnel lifting cage. For this purpose, a detailed risk assessment and work process description must be prepared. This shall specify the conditions under which this transport may be carried out and when the procedure shall be discontinued (see also B.19.3).

Organisational measures for crossover:

- There must be constant visual as well as radio contact between all involved parties and their responsible persons (e.g. OIM/NOM, captain, shore control - if the platform is unmanned).
- The process must be known in detail by all parties involved (see also sections B.9, B.11 and B.13 of this Guideline). The operating instructions and the hazard assessments for entering and leaving the platform via the access ladder at the landing stage must be available on site.
- No objects, backpacks or bags may be carried during the crossover.
- Each person must always have a firm grip with at least one hand.
- Only one person at a time may be on fixed ladders, pilot stairs, etc. For footbridges, gangways, etc., the maximum number of persons permitted, or the maximum permissible weight must be observed.
- At each crossover, at least one person from the crew, with communication connection to the line (captain, OIM, NOM, etc.), must accompany the crossover, instruct and, if necessary, support the transferring persons.

- The crew working in the crossover area shall be instructed according to their work, possible hazards and necessary equipment/PPE. Proof must be kept according to the requirements of this policy.
- At least one lifebelt shall be provided in transition areas and shall be readily accessible.
- Appropriate equipment for fetching or flying objects of small size and weight (bags, etc.) should be available for climbing over in the areas. Possible equipment could be:
 - a line with appropriate length, materials and load capacity,
 - a net with appropriate mesh width,
 - Load capacity and mounting devices etc.
- If necessary, the collection and transportation of objects must be assessed in a risk assessment with regard to risks and reduction measures.