

### **DGUV Vorschrift 84**



Accident Prevention Regulations for **Shipping Enterprises** 

Dated 01 April 2018<sup>1)</sup>

<sup>1)</sup> Notified according to the DIRECTIVE (EU) 2015/1535 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 September 2015 laying down a procedure for the provision of information in the field of technical regulations and of rules on Information Society services (codification) (ABI. L 241 of 17.9.2015, S. 1).



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The following Accident Prevention Regulations were passed by the representatives' meeting of the "Berufsgenossenschaft Verkehrswirtschaft Post-Logistik Telekommunikation" ("BG Verkehr"; German Liability Insurance Association for Transportation, Postal Logistics and Telecommunication):

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# Chapter one

**General Regulations** 

#### Sec. 1: Scope of application

(1) These Accident Prevention Regulations shall apply to employers and insured persons in shipping enterprises, including fishing.

(2) Secs. 11 to 19 serve to implement EU Directive 93/103/EC into national law and apply to fishing vessels only.

(3) Secs. 20 to 22 serve to implement the Convention C 152 of the International Labour Organization (ILO) and apply to dock work only.

# Sec. 2: Special characteristics of seafaring; basic obligations of the employer

(1) According to Sec. 2 Par. 1 DGUV Regulation 1, the employer shall implement the necessary measures to prevent work accidents, occupational diseases and work-related health hazards. In addition to the following regulations, as well as the provisions listed in Appendix 1 DGUV Regulation 1, he shall, in particular, comply with the national Health and Safety Regulations concerned with shipping and maritime transport, which shall remain unaffected, listed in Appendix 1 to these Accident Prevention Regulations.

(2) When assessing the working conditions in accordance with Sec. 3 DGUV Regulation 1, the employer shall take into account the special characteristics of seafaring and ship operation.

In particular, these include

- weather conditions and swell, as well as the related acceleration forces,
- regular crew changes,
- the multi-lingual and multi-cultural composition of the crew,

- procurement of work equipment and materials outside the territorial applicability of European Union regulations,
- co-operation with other employers who are not subject to German or corresponding EU occupational safety regulations,
- co-operation with dock labour companies and their supervisors working on board sea-going vessels.

#### Sec. 3: Behaviour and basic duties on board

(1) The employer's right of instruction also extends to the behaviour of the insured persons outside their working hours, as well as to facilities in accommodation rooms, insofar as this is necessary to guarantee the safety and health of the insured persons.

(2) The employer shall designate special smoking areas and ensure that his employees smoke in these only. Smoking in the bunk is prohibited.

(3) The employer shall monitor the implementation and effectiveness of measures to protect the health and safety of insured persons, e.g. as required by Sec. 2 Par. (1) of these Accident Prevention Regulations, or which have been determined in the risk assessment according to Sec. 3 Par. (1) DGUV Regulation 1.

(4) The employer shall ensure that regular trial runs of safety and communication facilities are carried out.

(5) The employer shall ensure that working and passage areas are unobstructed at all times.

(6) The employer shall ensure that danger signals and public announcements on board can be recognised by all insured persons.

(7) Insured persons shall behave in such a way that they can recognise danger signals and public announcements at all times.

(8) Insured persons are not allowed to consume alcohol, drugs, or other intoxicating substances in a way that they are unable to fulfil their assigned duties in the case of an emergency.

(9) Paragraph (8) shall also apply to the use of medication.

(10) According to their abilities, and as instructed and directed by the employer, insured persons shall protect their own safety and health on board, inside and outside of working hours. They have an equivalent obligation towards those persons who are affected by their actions or inactions.

(11) Before dock work is carried out, the employer shall entrust, in writing, a reliable and competent person with the task of co-ordinating ship operation work with any dock work to be carried out by other employers, in order to prevent hazardous interaction.

# Sec. 4: Work and accommodation areas, traffic routes, access to the vessel

(1) The employer shall ensure that an accommodation ladder, gangway, or other suitable safe means of access to the vessel is provided.

(2) The employer shall ensure that any means of access to the vessel is securely installed, and that its safety is guaranteed even under changing ambient conditions.

(3) The employer shall ensure that any persons coming on board behave in such a way that insured persons are not put at risk.

(4) The employer shall ensure that traffic routes as well as work spaces and areas on the vessel are arranged and operated in such a way that they pose no threat to the safety and health of persons.

(5) The employer shall ensure that workstations, traffic routes, railings, and holding devices on the vessel are installed and operated in

such a way that they ensure safe use, taking into account the maximum anticipated loads.

(6) Workstations or traffic routes with a risk of persons or objects falling, or which border on hazardous areas, shall be provided by the employer with protective facilities designed to prevent insured persons from falling, or from being injured by falling objects, or from entering hazardous areas.

(7) The employer shall ensure that climbing ladders and rungs are safe for use. This includes that they

- (a) have protective devices against falling, preferably climbing protection devices, if necessary
- (b) have a holding device at their step-out position.

#### Sec. 5: Working language

(1) The employer shall specify in writing a working language on board.

(2) The employer shall ensure that every insured person on board has mastered the working language to such an extent that they can understand the instructions and information required for safety and health.

(3) The employer shall ensure that instruction and briefing of insured persons, as well as documentation of all duties on occupational health and safety on board, are carried out in the working language.

#### Sec. 6: Continuation of periodical duties during crew change

(1) The employer shall ensure that, even during the change of crew members, the uninterrupted continuation of periodical inspection, testing, instruction, monitoring, and documentation duties is guaranteed from an organisational point of view, e.g. by a functionalised transfer instead of a personalised one, according to the defined duties of the crew members on board.

(2) The employer shall compile a list of the periodical duties referred to in Par. (1), specifying in writing intervals of repetition as well as responsibilities.

(3) In the case of a functional transfer of obligations as per Par. (1), the employer shall ensure that the functions in question are assigned only to persons who are sufficiently qualified and able to fulfil the associated inspection, testing, instruction, monitoring, and documentation duties.

#### Sec. 7: Ship movement, accelerating forces and breaking seas

(1) When approaching areas of bad weather, or if there is any other risk of strong ship movement, the employer shall ensure that all persons on board are informed in a timely and comprehensive manner, the vessel's watertight integrity is established, and safety and protective measures are checked.

(2) When checking the vessel's watertight integrity as well as safety and protective measures in areas of bad weather, the employer shall ensure that any risk to insured persons is kept to a minimum.

(3) The employer shall ensure that insured persons are warned of the imminent threat of heavy breaking seas during their work on deck.

(4) The employer shall ensure that objects in work and accommodation areas are secured in such a way as to avoid any risk caused by their unintentional movement.

(5) The employer shall ensure that work equipment and tools are used in such a way as to avoid any risk caused by their unintentional movement.

(6) The employer shall ensure that mobile containers are arranged and positioned in such a way that safe extraction and filling is possible even under adverse weather and environmental conditions. (7) The employer shall ensure that maintenance work on machinery is carried out only under favourable weather conditions.

(8) By way of derogation from Par. (7), repair work may be carried out on machinery if its failure directly jeopardizes the safety of the ship, and if said machinery and parts are secured in such a way that there is no risk of uncontrolled moving parts or energy release. The input of energy due to environmental influences such as wind and current must be taken into account.

#### Sec. 8: Dangerous work on seagoing vessels

(1) When assessing the working conditions as per Sec. 3 DGUV Regulation 1, the employer shall provide a list of the duties associated with special dangers, for use during ship operation. Entering or accessing hazardous areas is to be taken into account.

(2) The employer shall ensure that the order to carry out dangerous work as defined in Par. (1) is given in writing. The necessary protective measures shall be recorded in the order.

#### Sec. 9: Procurement of work equipment and materials outside the EU

(1) The employer shall, as far as possible, ensure that even outside the EU, only work equipment and materials are procured and provided on board that, when used as intended, ensure safety and health protection.

(2) If the requirements of Par. (1) cannot be complied with when procuring work equipment and materials outside the EU, the employer shall check whether special protective measures are necessary for working with these products. The results of the check must be documented, and the insured persons are to be informed accordingly.

# Sec. 10: Maintenance of electrical machinery and equipment in on-board operation

The employer shall ensure that the maintenance of electrical machinery and equipment is only assigned to persons with sufficient qualification, and that this assignment of tasks is documented.

## **Chapter two**

### Regulations for fishing vessels

Provisions for the implementation of COUNCIL DIRECTIVE 93/103/EC of 23 November 1993 concerning the minimum safety and health protection requirements for work on board fishing vessels

#### Sec. 11: Electrical Machinery

(1) The employer shall ensure that the main and emergency switchboards are set up in a way that they cannot both be impaired in their function at the same time in the event of a fire or the intake of water, wherever this is possible.

(2) The employer shall ensure that fuse boxes are checked regularly, with particular regard to the fuse ratings.

#### Sec. 12: Doors

(1) The employer shall ensure that doors can be opened from the inside without special tools at all times. If the work stations are manned, it must be possible to open the doors from both sides.

(2) The employer shall ensure that doors work safely in all weather and sea conditions. If possible, sliding doors shall be avoided.

#### Sec. 13: Escape routes and emergency exits

The employer shall ensure that closed doors that can be used as emergency exits can be opened immediately and without difficulty from the inside and outside in the case of an emergency by any insured person or rescue team.

#### Sec. 14: Fire fighting

The employer shall ensure that hand-operated fire-fighting equipment is easily accessible and simple to operate.

#### Sec. 15: Room temperatures

(1) The employer shall ensure that there is a healthy room temperature during working hours in those work spaces for which there are no specific operational requirements concerning the room temperature, depending on the work to be carried out, the physical demands on the insured persons, as well as the weather conditions.

(2) The employer shall ensure that the temperature in accommodation spaces, sanitary facilities, galley and pantries, as well as hospital and treatment room, if existing, corresponds to the respective purpose of each room.

#### Sec. 16: Lighting

(1) The employer shall ensure that work spaces receive as much daylight as possible and are equipped with artificial lighting suitable for the respective activity, without endangering safety or health of the insured persons or disturbing other vehicles during navigation.

(2) The employer shall ensure that those work stations in which the insured persons are exposed to accident risks if the artificial lighting fails are fitted with sufficient emergency lighting.

#### Sec. 17: Catch decks on fishing vessels

(1) The employer shall ensure that the upper part of the ramp on stern trawlers is provided with a fence or another safety arrangement or protective device in order to protect persons working there from the danger

of falling onto the ramp. This safety device must have the same height as the adjacent bulwarks.

(2) The employer shall ensure that the safety device according to Par. (1) can be opened and closed easily, and can be opened only while the net is being paid out or hauled in. In the case of new fishing vessels, the safety device according to Par. (1) shall preferably be opened and closed by remote control.

(3) The employer shall ensure that a reliable communication between bridge and working deck is guaranteed.

#### Sec. 18: Accommodation and service areas

(1) The employer shall ensure that the entrances to accommodation spaces and service areas provide adequate protection against weather conditions and swell.

(2) The employer shall ensure that the effects of the ship's movements and accelerations on the accommodation spaces of the insured persons is minimised by suitable positioning of these rooms, insofar as this is permitted by the design, dimensions, and purpose of the vessel.

(3) The employer shall ensure that accommodation spaces have an effective ventilation that ensures a constant supply of fresh air and prevents condensation.

(4) The employer shall equip new fishing vessels on which there is an accommodation space with showers with hot and cold running water, sinks, and toilets; the respective rooms shall be properly ventilated.

(5) The employer shall ensure that accommodation spaces are provided with appropriate lighting. This shall include at least

- adequate normal general lighting,
- weaker general lighting so as not to disturb resting insured persons,
- individual lighting in each bunk.

#### Sec. 19: Noise

If machinery is monitored from the engine room, the employer shall provide a control room insulated from sound and heat, which is separate from the engine room and can be accessed without entering said engine room. The wheelhouse is considered to be a space that fulfils the requirements according to sentence 1.

# **Chapter three**

Occupational safety and health in dock work

#### Provisions for the implementation of Convention C 152 of the International Labour Organisation (ILO) concerning occupational safety and health in dock work

#### Sec. 20: Vertical ladders in service areas

The employer shall ensure that in the case of vertical ladder lengths of more than 10 m in service areas, two staggered ladders are provided, connected to each other at a height of 6 m by a platform.

#### Sec. 21: Hold ladders

(1) The employer shall ensure that cargo holds are provided with fixed steel hold ladders. In cargo holds with an overall depth of up to 3.00 m, fixed steel hold ladders may be substituted by loose leaning ladders.

(2) The employer shall ensure that in cargo holds with a length of more than 15.00 m, at least one steel hold ladder each is installed forward and aft.

(3) The employer shall ensure that vertical hold ladders longer than 10.00 m are arranged in such a way that they offer the possibility of resting on platforms, sitting brackets, or similar arrangements.

(4) The employer shall ensure that raised decks are accessible by fixed hold ladders. At the shaft tunnel, fixed hold ladders must lead down on either side.

(5) The employer shall ensure that the hold ladders are at least 0.30 m wide. The distance between the rungs must be 0.30 m. The horizontal distance of the rung centre from fixed parts shall not be less than 0.15 m. The rungs shall be aligned and made of square steel bars with one edge up.

(6) The employer shall ensure that access hatch coamings higher than 0.80 m have a sufficient number of offset climbing irons or wall steps on the outside.

(7) The employer shall ensure that the free cross-section of access hatches is at least 0.60 m x 0.60 m. Deck openings and casings in which hold ladders are installed shall have the same free cross-section.

(8) The employer shall ensure that access hatch covers have a self-arresting fixing device to prevent unintentional closing.

(9) The employer shall ensure that hold ladders in cargo tanks are tilted and equipped with hand rails on both sides. The steps shall have at least two square steel bars set on edge at the same level, or shall have other slip-proof treads.

(10) Pars. 2 to 4 do not apply to cargo tanks.

#### Sec. 22: Protective devices at open hatches, shell doors, and ramps

(1) The employer shall ensure that cargo and store hatches with a coaming height of less than 0.80 m are protected by a guard rail, or other equivalent devices, which reach at least 1.0 m above deck. For coamings of a height less than 0.45 m and for flush deck hatches, the railing shall be provided with an intermediate rail at half height. Sentence 1 shall not apply to coamings which, on the date on which these Accident Prevention Regulations entered into force, were already fitted with a handrail or similar device reaching at least 0.9 m above deck.

(2) The employer shall ensure that partly or completely opened tweendeck hatches are protected by guard rails, chains, nets, or hand lines, together with adequate devices to attach them.

(3) The employer shall ensure that adequate securing devices or covers are provided for trim openings and other small openings in tweendecks. (4) The employer shall ensure that jamming and shearing zones at shell doors and ramps are avoided by ensuring a sufficient safety distance between movable parts, or between movable and fixed parts, or by providing a sufficient safety distance. Where this is not possible, the employer shall ensure in another way that there is no danger to persons.

(5) The employer shall ensure that shell doors and ramps are, as far as possible, provided with fixed guard rails or barriers as a protection against falling down. For movable barriers, additional visual or acoustic warnings shall be provided if necessary.

(6) The employer shall ensure that the details of the maximum permissible load are durably and visibly affixed to ramps.

(7) The employer shall ensure that leaning ramps are equipped with a protection against sliding.

(8) The employer shall ensure that the dangerous area in the way of shell doors and ramps is properly marked and well illuminated.

# **Chapter four**

Implementation, annulment of accident prevention regulations

#### Sec. 23: Implementation, annulment of Accident Prevention Regulations

These Accident Prevention Regulations enter into force on 01 April 2018. At the same time, the provisions of the Accident Prevention Regulations "Unfallverhütungsvorschriften für Unternehmen der Seefahrt" from 01 January 1981 in the version of 01 January 2011 are annulled.

## Annex 1:

### Maritime Occupational Health and Safety Regulations

In addition to national Health and Safety Regulations, the employer shall observe the other Health and Safety Regulations listed in international conventions and in national regulations concerned with shipping and maritime transport, as amended, which shall not be affected. These include in particular:

- German Maritime Labour Act (Seearbeitsgesetz, SeeArbG)
- German Regulations on Maritime Medicine Requirements on Merchant Vessels (Maritime Medizin-Verordnung, MariMedV)
- German Ship Safety Act (Schiffssicherheitsgesetz, SchSG)
- German Ship Safety Ordinance (Schiffssicherheitsverordnung, SchSV)
- German Ordinance on Accommodation in Maritime Shipping (See-Unterkunftsverordnung, SeeUnterkunftsV)
- German Maritime Safety Investigation Act (Seesicherheits-Untersuchungs-Gesetz, SUG)
- International Convention for the Safety of Life at Sea (SOLAS)
- Standards of Training, Certification and Watchkeeping for Seafarers (STCW)
- ISM-Code
- IMO Resolution A.468 (XII) Code on Noise Levels on board ships
- MSC/Circ. 1014 Guidance on Fatigue Mitigation and Management

The above list is not exhaustive.

## **Appendix:**

### Definitions

#### **Fishing vessel**

Any vessel used for commercial purposes for catching, or catching and processing, fish or other creatures found in the sea or in rivers, flying the flag of a Member State or registered under the plenary jurisdiction of a Member State.

#### New fishing vessel

Any fishing vessel measuring 15 m or more between perpendiculars for which

- i. the order for the construction or conversion was placed on or after 23 November 1995,
- ii. the order for the construction or conversion was placed before 23 November 1995 and the delivery date was to be no less than three years thereafter,
- iii. or, in the event that no construction order exists,
  - the keel was laid,
  - construction identifiable with a specific vessel has begun; and
  - assembly has commenced, comprising at least 50 tonnes or 1% of the estimated mass of all structural material, whichever is less.

#### **Existing fishing vessel**

Any fishing vessel measuring 18 m or more between the perpendiculars and which is not a new fishing vessel.

#### Accommodation spaces

In particular, these include the following:

- a. living and sleeping quarters,
- b. messrooms, pantries, and other day rooms,
- c. recreation rooms,
- d. office spaces,
- e. galleys,
- f. changing rooms,
- g. lavatories and washing facilities, including facilities for washing, drying, and ironing linen and clothes (sanitary facilities),

- h. hospital and treatment room,
- i. alleyways in those areas of the ship designated for the accommodation of crew members (passageways).

#### Dock work

Dock work means all work related to the loading and unloading of sea-going ships, including preparation and execution, as well as the related cargo-handling, transport, and supply duties during lay time.

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