Regulation of 1 January 2005 No. 8
concerning the working environment, health and safety
of workers on board ship


Chapter 1
General provisions

§ 1-1
Objective

The objective of this Regulation is to ensure that work and off-duty time on board is arranged and organized so that the safety and physical and mental health of the workers is ensured in accordance with the technological and social development of society. This Regulation shall furthermore ensure that the safety and health of workers is protected against risks arising or likely to arise from exposure to chemicals and biological agents in the working environment.

§ 1-2
Scope of application

(1) This Regulation shall apply to workers on Norwegian ships unit subject to the same limitations contained in the Regulations of 31 January 1986 No. 222 concerning the scope of the Seamen's Act, Section 1. This Regulation shall also apply to persons as are mentioned in Sections 3 and 7 of the same Regulation.

(2) The provisions of Chapters 1-6, including Chapter 14, are general provisions on the working environment, safety and health. Chapters 7-13 contain additional provisions.

Amended by Regulation of 29 June 2007 No. 1006 (in force on 1 July 2007).
§ 1-3

Duties

(1) The company, the master and other persons working on board shall see to, ensure and contribute to compliance with this Regulation in accordance with the provisions relating to responsibility laid down in the Ship Safety and Security Act and this Regulation. The safety and health of workers shall be ensured in all matters associated with work or off-duty time on board.

(2) The company shall see to that the personnel of the company’s land-based organization responsible for ensuring the compliance with the provisions of this Regulation on board, has the necessary competency, including a minimum amount of training as described in § 5-14.

(3) Workers shall under no circumstances incur expenses as a result of safety and health measures on board.

(4) The responsibility of the company under this Regulation is not affected by the obligations incumbent on workers and their representatives. This also applies to obligations incumbent on other activities on board.

Amended by Regulation of 29 June 2007 No. 1006 (in force on 1 July 2007).

§ 1-4

Duties concerning safety and health in other activities on board

(1) If other activities are carried out on board, these shall be coordinated with the operation of the vessel in general and be organized in accordance with this Regulation.

(2) The person in charge of other activities on board and that person’s employer are also required to ensure that the activities which are their responsibility are organized in accordance with this Regulation.

§ 1-5

Exemptions

(1) The Norwegian Maritime Directorate may, when acceptable in terms of health and protection and not contravening international requirements, in special cases decide to grant exemptions from this Regulation.

(2) The Norwegian Maritime Directorate may demand that the company submits a statement from a competent person or body in connection with an application for exemption from this Regulation.

(3) The Norwegian Maritime Directorate may impose special conditions on such exemptions.

§ 1-6

Safety Management System

(1) For vessels required to have a Safety Management System under the regulations concerning a Safety Management System for passenger ships and cargo ships currently in force, the company shall ensure that the requirements laid down in this Regulation are complied with through the Safety Management System.

(2) For vessels which are not subject to the first paragraph, the company should prepare a uniform, overall plan to ensure that the requirements laid down in this Regulation are complied with.

Chapter 2

Provisions concerning the working environment, safety and health

§ 2-1

General guidelines for the working environment, safety and health

(1) The following general guidelines shall form the basis for the implementation of the provisions of this Regulation:
   a) risk factors are to be eliminated;
   b) any risk which cannot be eliminated shall be individually assessed;
   c) any risk shall be counteracted at the source;
   d) technical progress shall be taken into account;
   e) common protective measures of a technical nature, or measures, methods or procedures related to the organization of the work shall, if possible, have priority before individual protective measures.

(2) The necessary arrangements shall be made for workers to be given a reasonable opportunity for professional and personal development through their work.

(3) Particular attention shall be given to organizing work and off-duty time on board so as to create social and environmental conditions that are conducive to health, well-being and welfare for the workers.
§ 2-2  
Risk assessment

(1) Hazards on board shall be identified. When the hazard has been identified, an assessment of the risk represented by the hazard shall be made. Such risk assessment shall be made on a regular basis and:
   a) whenever new working equipment or new technology is introduced, and
   b) whenever other modifications are made to the organization or planning of work, which may affect the health and safety of workers.

(2) The results of the risk assessment shall be documented in writing.

(3) If a risk to the safety and health of workers is identified, the necessary measures shall be taken to eliminate or reduce the hazards.

(4) If a risk cannot be avoided in any other way, appropriate personal protective equipment shall be made available and shall be used.

(5) For any worker who is pregnant, has recently given birth or is breastfeeding, an additional, special risk assessment shall be made pursuant to Section 8-4.

§ 2-3  
Arrangement and organization of work

(1) The measures and working methods applied shall ensure the best possible level of protection and a continuous improvement of the safety and health of workers, and shall be integrated in all activities on board. Planning and assessment of the working environment and implementation of the necessary preventive measures shall take place in cooperation with the workers. The following elements shall, among other things, be ensured:
   a) the work shall be arranged and organized with due regard to the age, competence and other qualifications of the individual worker;
   b) the work shall be adapted to the individual worker, particularly with regard to the design of the workstation, the choice of equipment and methods, and with the aim of facilitating monotonous and repetitive work;
   c) the persons charged with directing and supervising work on board shall have the necessary qualifications and an awareness of hazards, etc. associated with the work;
   d) effective supervision to ensure that work is carried out in a safe and appropriate manner in terms of health;
   e) the persons who are put to work to have been given the possibility of sufficient rest.

(2) In addition, for any worker who is pregnant, has recently given birth or is breastfeeding, special arrangement and organization of work shall be ensured pursuant to Section 8-5.

§ 2-4  
Consultation of workers

Workers or their safety representative shall be consulted and have the right to make proposals in connection with any issue which may affect their health or safety.

§ 2-5  
Information to workers

(1) It shall be ensured that workers are given and have understood the necessary information about safety and health hazards.

(2) Documentation concerning the risk assessment specified in Section 2-2 shall be available at all times to workers or their safety representative.

(3) Workers shall be informed of all measures taken to improve safety and health on board.

§ 2-6  
Training of workers

(1) Every individual worker shall receive the necessary training:
   a) to be able to carry out his work in a safe and proper manner;
   b) before being given access to areas involving a serious or special risk;
   c) when new technology is introduced.

(2) Training shall be repeated regularly, and in the case of a modified or new risk.

(3) Training completed shall be documented in writing.

§ 2-7  
Medical examination/health

(1) Measures shall be taken to ensure that workers undergo the necessary medical examination relevant to the safety and health hazards which they will be exposed to on board.
(2) Workers shall undergo consecutive medical examinations when exposed to risks that may develop into long-term health injuries.

§ 2-8

Notification and duty to report personal injuries and duty to report occupational diseases

(1) In the event that a worker has suffered an occupational accident resulting in death or serious injury, or if death or serious injury is assumed to have been caused by working conditions on board, the Norwegian Maritime Directorate shall be notified immediately and in the speediest possible manner. Such notification shall contain information on personal data, the condition of the person in question, a description of events and the measures taken. If the worker has been brought ashore for medical treatment abroad, the notification shall indicate where such treatment is given and the Norwegian foreign service mission which has been notified.

(2) In the event of death and any personal injury or illness assumed to have been caused by an occupational accident, the working situation or conditions on board, a completed personal injury report form shall also be sent to the Norwegian Maritime Directorate as soon as possible. This also applies in the event of a personal injury or illness occurring during journey to or from the vessel at the company’s expense or during shore leave.

a) For workers subject to the National Insurance Act of 28 February 1997 no. 19, the report referred to in the second paragraph shall be sent to the Norwegian Maritime Directorate in the form of the copy reserved for that purpose of the National Insurance Administration’s form for reporting occupational injury/personal injury.

b) For workers who are not subject to the National Insurance Act, such report shall be sent to the Norwegian Maritime Directorate on the Directorate’s special personal injury report form.

Amended by Regulations of 28 June 2006 No. 784 (in force on 1 July 2006) and 20 December 2006 No. 1588 (in force on 1 January 2007).

Chapter 3

Personal protective equipment

§ 3-1

Provisions on personal protective equipment

(1) This chapter prescribes minimum requirements for the use of personal protective equipment.

(2) Personal protective equipment shall be used when a risk cannot be eliminated or sufficiently limited by means of common protective measures of a technical nature or by means of measures, methods or procedures relating to the organization of work.

§ 3-2

Definitions

(1) Personal protective equipment is equipment which the worker shall wear or carry in order to protect himself against one or more hazards likely to endanger his safety and health, and any appurtenances or accessories serving that purpose.

(2) The definition in the first paragraph does not cover:

a) ordinary working clothes and uniforms not specially designed to protect the safety and health of workers;

b) emergency help and rescue equipment;

c) sporting equipment and other equipment used in connection with leisure activities;

d) portable devices for detecting and signalling risks and harmful factors.

§ 3-3

Requirements for personal protective equipment

(1) All personal protective equipment shall:

a) be appropriate to the hazards it is designed to prevent, without itself causing a risk;

b) be suited to existing conditions at the place of work;

c) take the health of workers into consideration;

d) fit the employees, if necessary following adjustments.

(2) The protective equipment shall be maintained, repaired and replaced so as to be in good working order at all times.

(3) Protection and safety equipment shall, when not in use, be stored in separate lockers on board.

(4) If a worker has to use several types of protective equipment simultaneously, the equipment shall be capable of being combined without reducing the protective effect of the individual items of equipment.

(5) If circumstances require personal protective equipment to be used by several workers, appropriate measures shall be taken to ensure the health and hygiene of those workers.

(6) The conditions for use of personal protective equipment shall be determined on the basis of the seriousness of the risk, the special conditions of the individual worker’s working condition and the protective characteristics of the equipment.
(7) Personal protective equipment shall be used only for the purposes specified and in line with the appurtenant instructions and user manuals.

(8) In addition to the equipment which is required by other regulations, any vessel shall, in order to carry out work requiring special safety equipment, carry on board an adequate number of the following equipment:
   a) safety belts/safety harnesses;
   b) helmets, tight-fitting goggles, face screens, ear protectors;
   c) boiler suits, oil skins, gauntlets, work vests/flotation vests;
   d) safety boots, self-contained breathing apparatus and filter masks.

§ 3-4

Procurement of personal protective equipment

(1) Personal protective equipment shall satisfy the requirements of the regulations currently in force concerning the construction, design and production of personal protective equipment, and shall carry CE marking.

(2) If personal protective equipment has to be procured in a port outside the European Economic Area and equipment carrying CE marking cannot be obtained within a reasonable period of time or without involving undue delays and costs, other equivalent equipment may be procured.

§ 3-5

Information and training

(1) Workers shall receive prior information about the risks against which the personal protective equipment protects.

(2) Workers shall receive and shall have understood the necessary information about the use of personal protective equipment.

(3) Workers shall receive the necessary training and practice in the use of personal protective equipment.

Chapter 4

Work equipment

§ 4-1

Provisions on work equipment

This chapter prescribes minimum safety and health requirements in connection with the workers’ use of work equipment.

§ 4-2

Definitions

For the purpose of this Chapter, the following definitions shall apply:
   a) Work equipment: Any machinery, apparatus, tools or installations used for work.
   b) Use of work equipment: Any work operation involving the use of work equipment, including starting and stopping of equipment, operating, transporting, installing, assembling, repairing, modifying, maintaining, servicing and cleaning.

§ 4-3

General obligations

(1) Work equipment shall be designed and arranged so that workers when using the equipment are protected against injury to life or health, including accidents, injuries from strain and exposure which may cause health injuries in the long term.

(2) The choice of work equipment shall take account of working conditions and the nature of the work so that hazards to the safety and health of workers are limited as far as possible.

(3) When work equipment cannot be used without a hazard to the safety and health of workers, necessary measures shall be taken to limit the risk as far as possible.

(4) Work equipment shall be used only for the work operations and under the conditions for which it is intended.

§ 4-4

Inspection and maintenance of work equipment

(1) If safety is dependent on the installation and assembly of work equipment, an inspection shall be carried out before the equipment is put into service.
Work equipment exposed to loads which cause deterioration likely to result in hazardous situations shall undergo adequate inspection to identify and counteract such hazards.

Inspections referred to in the first and second paragraphs shall be documented.

Work equipment shall undergo maintenance regularly to ensure its proper working condition.

§ 4-5

Work equipment involving special risk

The use of work equipment which may involve a special risk of injury to life and health shall be subject to written job instructions and the necessary measures to ensure that:

a) its use is restricted to workers having this as their task and having received the necessary training;

b) work equipment is not put into service if defects or wear may cause hazards during use.

§ 4-6

Information to workers

(1) Workers shall be given and shall have understood the information necessary for the safe use of work equipment. Information shall be provided in particular about:

a) hazards associated with irregularities which may arise;

b) precautions to be taken on the background of experience with the use of the work equipment;

c) the hazards which may be associated with use of the work equipment with regard to other workers present in the work area.

§ 4-7

Training of workers

(1) Workers shall be given the necessary training, practice and instruction in the use of work equipment.

(2) Workers having duties relating to inspection of work equipment shall be given the necessary training, practice and instruction to be able to carry out those duties.

Chapter 5

Safety representatives and working environment committees

§ 5-1

Election of safety representatives

(1) A safety representative shall be elected by and from among those who are employed on board in connection with the ordinary operation of the vessel.

(2) One safety representative shall be elected on vessels having 3-7 workers on board, unless a majority of the workers decides that safety and environmental work on board shall be ensured without an elected safety representative.

(3) There shall be at all times not less than:

a) one safety representative on vessels having 8-14 workers;

b) two safety representatives on vessels having 15-39 workers;

c) three safety representatives on vessels having not less than 40 workers.

(4) When persons other than the company’s employees are also engaged in activities on board, there shall be one safety representative when the number of such persons is 4-14, and two safety representatives when the number of such persons is not less than 15. A safety representative elected under this provision is additional to the safety representative elected under the second and third paragraphs.

(5) The safety representative should preferably be elected from among subordinate personnel having experience in a vocational field. Where there are more than one safety representative on board, these should be elected from among various trade groups. The master, the head of other activities on board, a head of department or health personnel are not eligible as safety representative.

(6) A head of department may be elected safety representative on a vessel having 3-7 workers on board when the safety representative cannot be elected from among subordinate personnel. The master is not eligible as safety representative.

(7) The master, assisted by an elected representative, shall arrange for the election of safety representatives. The safety representative shall be elected by majority vote. Details of the election shall be entered in the vessel’s log book.

(8) In the event that a worker refuses to be elected safety representative, the master shall appoint the safety representative. A safety representative who was to have been elected under the provisions of the fourth paragraph shall be appointed following consultation with the head of the activity concerned.
§ 5-2

Election of safety representatives on vessels in local operation

(1) Where a company has several vessels in local operation, including ferries and high-speed vessels, one safety representative shall be elected on every vessel having 3-7 workers on board. On board vessels having more than 7 workers on board, the provisions of Section 5-1 shall apply.

(2) The safety representative has the right and the obligation, as far as practicable, to intervene temporarily in matters concerning the working environment on another of the company’s vessels in local operation. This applies only when that vessel is without a safety representative on board as a consequence of a shift schedule, illness, etc.

(3) In cases of doubt, the Norwegian Maritime Directorate will decide which vessels are subject to the provisions concerning local operation.

§ 5-3

Election of senior safety representative

(1) Where there is more than one safety representative on board at the same time, a senior safety representative shall be elected by and from among these. In the event of a tie vote, a revote shall be taken among those who gained most votes. If the tie continues the senior safety representative shall be elected by the working environment committee.

(2) The senior safety representative is responsible for co-ordinating the activities of the safety representatives. The senior safety representative shall decide the distribution of fields of competence among the safety representatives.

(3) The provisions prescribed for the safety representative otherwise apply correspondingly to the senior safety representative.

§ 5-4

Election of senior safety representative for vessels in local operation

(1) For vessels engaged in local operation and having a safety representative under Section 5-2, a senior safety representative shall be elected for every four of the company’s vessels. Similar types of vessel and groups of vessels having the same trade area shall be taken into account as far as practicable.

(2) The senior safety representative shall be elected by and from among the safety representatives. In the event of a tie vote, a revote shall be taken among those who gained most votes. If the tie continues the senior safety representative shall be elected by the environment committee. A head of department elected safety representative under Section 5-1, sixth paragraph, shall not, as far as practicable, be elected senior safety representative.

(3) The senior safety representative is responsible for co-ordinating the activities of the safety representatives on the vessels for which that person is senior safety representative.

(4) The provisions prescribed for the safety representative otherwise apply correspondingly to the senior safety representative.

§ 5-5

Term of office for safety representatives

(1) Safety representatives shall be elected for a period of one year. Prior to elections it may be decided that the term of office will be two years. If a safety representative terminates his service on board a new safety representative shall be elected as soon as possible.

(2) On vessels with shift schedules or fixed rota work, an elected safety representative continues when he re-enters service on board. This applies in the event that a safety representative was otherwise to have been elected in accordance with the last sentence of the first paragraph.

(3) The term of office of a safety representative appointed by the master may be up to six months at a time.

§ 5-6

Tasks of the safety representative

(1) The safety representative shall safeguard the interests of workers in matters relating to the working environment on board. The safety representative shall ensure that work on board is carried out in such a way that due consideration is given to the safety and health of the workers, and if necessary make proposals for new protection measures.

(2) The safety representative should participate in the development of procedures and job specifications of importance to the safety and health of the workers. The safety representative should also participate in risk assessments referred to in Section 2-2 and verify that the necessary measures are taken in accordance with that provision.

(3) The safety representative shall in particular ensure that:
   a) work equipment, technical devices, chemical substances and work processes do not expose workers to hazards;
   b) protective devices and personal protective equipment are in proper working order and are used;
   c) workers are given the necessary instruction, practice and training;
   d) work is otherwise organized so that workers are able to perform it in a safe and proper manner in terms of health and safety.
(4) If the safety representative is made aware of matters which may cause an accident or health injury, the safety representative shall immediately do his utmost to avert the hazard. In the event that this is not possible, the safety representative shall without delay notify the master or his representative of the matter. The master shall respond to the safety representative’s notification. If the notification has received no attention within a reasonable period of time, the safety representative shall notify a Norwegian authority, such as a Norwegian foreign service mission or the Norwegian Maritime Directorate. The master and the working environment committee should be informed prior to such notification.

(5) In connection with personal accidents such as death and occupational and health injury, the safety representative shall as soon as possible write a statement of his assessment of the case and any protective measures taken to avert such injury. The statement shall be signed by the safety representative, or the senior safety representative, if appropriate. The statement shall be written on the form specified for that purpose and sent to the competent authority.

(6) The safety representative shall, if possible, participate at supervisory visits and other inspections or surveys, including internal control and audits relating to the environment on board. The master shall notify the safety representative of such visits and make the necessary arrangements for the safety representative to participate. The safety representative shall personally decide whether it is possible to participate. If participation at such visits is not possible, the safety representative shall inform the master of the reason.

(7) The safety representative shall keep an accident prevention log in which he shall make entries concerning his work, such as instructions and requests. The same applies to requests made to the master. The accident prevention log shall be submitted to meetings of the working environment committee.

(8) The accident prevention log shall be kept available on board for not less than three years after the last entry was made.

Amended by Regulation of 29 June 2007 No. 1006 (in force on 1 July 2007).

§ 5-7

Right to temporarily stop hazardous work

(1) If, in the opinion of the safety representative, a work operation may cause immediate hazard to the life and health of a worker and the hazard cannot be averted in any other way, the safety representative shall stop the work temporarily. Work shall be stopped only to the extent deemed necessary by the safety representative to avert hazard or prevent a more dangerous situation from arising. Where safety routines have been established and specify a procedure for stopping work operations, that procedure shall be followed as far as practicable. The safety representative shall as soon as possible notify the master, who shall decide whether the work operation is to continue.

(2) A safety representative who stops work temporarily under the provisions of the first paragraph, shall not be liable for any damage or loss resulting from such stoppage.

Amended by Regulation of 29 June 2007 No. 1006 (in force on 1 July 2007).

§ 5-8

Duty to establish a working environment committee

(1) On vessels required to have a safety representative under Section 5-1 and having not less than eight workers on board, a working environment committee shall be established in accordance with the provisions of Section 5-9.

(2) Companies having ships required to have a safety representative under Section 5-2 shall establish at least one working environment committee in accordance with the provisions of Section 5-10.

Amended by Regulation of 29 June 2007 No. 1006 (in force on 1 July 2007).

§ 5-9

Composition of the working environment committee

(1) The working environment committee shall be composed of the senior safety representative, where such shall be elected, and up to three safety representatives, as well as the master, the chief engineer, the steward and a safety officer, if appropriate. If, in addition to the senior safety representative, there are more than three safety representatives on board, the three safety representatives to form part of the committee shall be elected by the safety representatives. Where someone other than the company is also engaged in activities on board with not less than four workers, the head of such activities shall also sit on the committee.

(2) Where the number of employees and their composition is such that it is not possible to form a working environment committee as provided in the first paragraph, the working environment committee shall consist of the senior safety representative, where such shall be elected, and the safety representatives, as well as the master.

(3) The various occupational groups on board should be represented on the committee, and the heads of department shall be permitted to join the committee. The size of the committee should not exceed 10-12 persons, depending on the number of occupational groups and the number of workers on board. The committee shall elect its own chairman and may also appoint a secretary. Insofar as it is deemed appropriate, the committee may assign specific tasks to some of its members in the fields of training, instruction and other matters falling within the competence of the committee. Other workers may be summoned to the meetings of the committee as needed.
(4) On vessels having established a safety committee or similar, the working environment committee may be adjusted to this so as to ensure an even representation of subordinate crew and officers.

(5) A nurse or other health personnel may participate in committee work only in a free and independent capacity as non-voting members or as secretaries.

Amended by Regulation of 29 June 2007 No. 1006 (in force on 1 July 2007).

§ 5-10
Composition of the working environment committee on vessels in local operation

(1) The working environment committee shall consist of the senior safety representatives or up to three safety representatives in the absence of senior safety representatives, a representative of the company administration and two masters. In addition, a committee representative may be elected from among the chief engineers. Other workers may be summoned to committee meetings as needed.

(2) The working environment committee shall elect its own chairman, and may also appoint a secretary. Insofar as it is deemed appropriate, the committee may assign specific tasks to some of its members in the fields of training, instruction and other matters falling within the competence of the committee.

(3) The working environment committee shall also discuss matters relating to protection work on those of the company’s vessels in local operation which do not have a safety representative.

Amended by Regulation of 29 June 2007 No. 1006 (in force on 1 July 2007).

§ 5-11
Tasks of the working environment committee

(1) The working environment committee shall work to ensure safe and proper conditions on board with regard to health, and shall for this purpose in particular concern itself with:
   a) matters relating to internal accident prevention and the health and welfare of workers;
   b) matters relating to training, instruction and information of importance to prevent occupational and health injuries during work and off-duty time;
   c) identification of workplaces and working conditions presenting a risk of accidents and health injuries, including an examination of the risk assessment referred to in Section 2-2 to determine whether this assessment is adequate to reveal the hazards to which workers are exposed;
   d) seek to reveal causes of disease and death which may be associated with the environment on board, and discuss proposals for preventive measures;
   e) active efforts to make sure protection work is incorporated into the planning of work;
   f) ensuring that newly employed workers are given appropriate guidance and training relating to protection and special risks to which the person in question may be exposed;
   g) discussing matters of importance to the well-being of those on board, social relations, leisure activities, etc.

(2) The working environment committee shall examine new and modified procedures and job descriptions of importance to the safety and health of workers, and make proposals for improvements where this is considered necessary.

(3) The committee shall review all reports of health injuries, occupational accidents and near-accidents, and ensure that measures are taken to prevent repetition. The committee shall also review supervisory reports.

(4) The committee shall hold not less than six meetings per year. In addition, the committee should hold at least as many open meetings concerning protective measures for all employees on board.

(5) The committee shall keep a special protocol in which entries regarding the committee’s activities shall be made and signed by all members. The protocol shall be kept available on board for not less than three years after the last entry was made.

(6) Safety representatives and members of the working environment committee shall familiarize themselves with applicable regulations, instructions and rules concerning safety and environmental work.

(7) Meetings of the committee may be convened at the request of two members to discuss matters relating to the working environment, safety and health.

Amended by Regulation of 29 June 2007 No. 1006 (in force on 1 July 2007).

§ 5-12
Duty of confidentiality

(1) The working environment committee is bound by a duty of confidentiality in cases concerning personal matters or the operational or business secrets of the company or other enterprise, and also where the committee decides that the duty of confidentiality shall apply.

(2) In cases where the working environment committee is bound by the duty of confidentiality, any person participating in the discussion of the case is required to prevent unauthorized persons from gaining access to or knowledge of information brought to his or her attention.
§ 5-13

Time required for safety and environmental work

(1) The safety representatives and members of the working environment committee shall have at their disposal the time required to carry out their tasks in an appropriate manner, though not in such a way as to encroach on the worker’s specified rest periods, and in general within regular working hours. If the person in question is required to interrupt his work, he shall notify his immediate superior.

(2) The master and the company shall ensure that the responsibility of a safety representative or member of the working environment committee does not involve any loss of earnings for the worker, or any other deterioration of his working conditions or terms of employment.

§ 5-14

Training

(1) The company shall see to that safety representatives and members of the working environment committee are given the training necessary for them to discharge their duties in a satisfactory manner. The expenses of such training shall be covered by the company. The workers and their organizations shall participate in ensuring that safety representatives and members of the working environment committee are given training pursuant to the first sentence. The expense of such training shall be covered by the company.

(2) The provisions of the first paragraph apply correspondingly to those who are engaged in other activities on board in addition to the shipping company.

(3) The training shall:
   a) include an introduction to safety and environmental work;
   b) provide knowledge of ergonomics, noise, lighting, climate and welfare-related measures;
   c) provide knowledge of accident prevention, including preventive measures, the use of personal protective equipment, etc.;
   d) provide knowledge of risk assessment of work operations as an essential part of accident prevention;
   e) provide an introduction to and information about the Seamen’s Act and other laws and regulations applicable in this field;
   f) provide an introduction to the structure and role of the Norwegian Maritime Directorate, also in relation to other authorities concerned.

(4) The duration of the training shall be not less than 40 hours. Training of shorter duration than 40 hours may be agreed if the parties jointly consider that this is appropriate with regard to the character and scope of the problems. The training shall be documented.

§ 5-15

Duty to provide information, and annual report

(1) Safety representatives and members of the working environment committee are required to provide information to Norwegian foreign service missions and the Norwegian Maritime Directorate. The same applies in connection with inquiries regarding extracts from the accident prevention log or protocol.

(2) Safety representatives and members of the working environment committee shall have access to the information necessary to discharge their duties. All vessels should have on board literature about protection work, to be kept available to all personnel.

(3) The working environment committee shall by 31 January every year produce a joint report of the safety and environmental work on board for the previous calendar year, to be submitted to the Norwegian Maritime Directorate with a copy to the company. This applies to all vessels irrespective of shift schedules or fixed rota work. The annual report shall be written on a form specified by the Norwegian Maritime Directorate.

(4) On vessels in local operation having established a working environment committee under Section 5-10, every committee shall submit a joint annual report.

(5) On vessels where no working environment committee has been established, the senior safety representative and the master shall produce the annual report in accordance with the provisions of the third paragraph. Where there is no safety representative, the master shall produce the annual report.
Chapter 6
Workers’ duty to cooperate

§ 6-1
Workers’ cooperation
Planning and evaluation of the working environment and the implementation of necessary preventive measures shall take place in cooperation with the workers.

§ 6-2
Workers’ duties
(1) Each individual worker has a duty to comply with orders and instructions, including to accept assignments, show caution and otherwise in every way cooperate to safeguard life, health and welfare in accordance with this Regulation.
(2) Any worker shall use the required protective equipment and otherwise cooperate to prevent accidents and health injuries.
(3) Off-duty time shall be organized so that the worker is rested and otherwise fit to carry out his work.
(4) If a worker becomes aware of defects or deficiencies which may involve a risk to life or health, he shall, unless the risk cannot be averted, notify the person responsible on board or the safety representative as soon as possible.
(5) Any worker has a duty to cooperate with the company, the master and other workers to ensure a good and appropriate environment and to achieve the objectives laid down in this Regulation.

§ 6-3
Workers’ right to stop hazardous work
(1) If work, in the opinion of a worker, cannot continue without a risk to life or health, that work shall be stopped in accordance with Section 5-7 first paragraph. The worker shall as soon as possible notify the master, who shall decide whether work is to continue.
(2) A worker who stops work as provided in the first paragraph shall not be liable for any damage or loss resulting from such stoppage.

Chapter 7
Special provisions concerning the manual handling of objects

§ 7-1
Provisions on the manual handling of objects
This Chapter prescribes minimum safety and health requirements for the manual handling of objects.

§ 7-2
Definitions
Manual handling of objects includes any lifting, putting down, pushing, pulling, carrying or moving of an object which, due to its nature, weight or adverse ergonomical condition, may cause back injury or other injury to workers.

§ 7-3
Organization of work
(1) The necessary measures shall be taken, or the appropriate aids shall be used, in particular mechanical equipment, to avoid manual handling of objects.
(2) In all cases where manual handling of objects cannot be avoided, the work shall be organized so that handling can be effected safely and without injury to workers.
(3) The organization of work shall be subject to an assessment of safety and health aspects, taking into consideration the nature, weight and shape of the object and the organization of the working environment and the task to be accomplished. Special consideration shall be given to the following aspects, inter alia:
   a) there should be sufficient space for the work operation;
   b) the working surface should be even and not too slippery for the workers’ footwear;
c) the working area should afford workers the possibility of handling objects at the appropriate height or in the correct position;
d) temperature, humidity and ventilation may affect safety;
e) workers should themselves have an influence on the rate of work and not be exposed to long-lasting and/or frequent physical strain which may cause injury.

§ 7-4
Information and training
(1) The workers or their safety representative shall be informed of the risk involved in manual handling of objects and of all measures taken in that connection.
(2) The workers or their representatives shall be given general directions, and, when possible, accurate information about:
   a) the weight of an object;
   b) the centre of gravity or the heaviest side, if the weight is unevenly distributed.
(3) Workers shall receive the necessary training in the correct handling of objects.

Chapter 8
Special provisions concerning workers who are pregnant, have recently given birth and are breastfeeding

§ 8-1
Scope of application
This chapter shall apply to any worker who:
   a) is pregnant;
   b) has recently given birth;
   c) is breastfeeding;
with the exceptions and special provisions set out in the regulations currently in force concerning the scope of application of the Seamen’s Act.

§ 8-2
Definitions
For the purpose of this Chapter, the following definition shall apply:
Injury: Any harmful effect on the health of a pregnant worker, her foetus or breastfeeding.

§ 8-3
Information to the master or the company
Where a worker falling within the scope of Section 8-1, paragraphs a), b) or c) has informed the master or the company of her condition, a risk assessment shall be made pursuant to Section 8-4 and the measures to be taken shall be considered pursuant to Section 8-5.

§ 8-4
Risk assessment
(1) The master or the company shall ensure that a special assessment is made of the probability of any harmful factors of the working environment posing a risk of injury to a worker falling within the scope of Section 8-1, paragraphs a), b) or c). The assessments shall be repeated at regular intervals and whenever there is any change in conditions which may influence the risk of injury to the worker.
(2) Where such risk is identified, the master or the company shall ensure that any harmful factors are determined, assess the overall risk of injury and decide the protection and safety measures to be taken.
(3) The worker shall be notified of the results of the assessment.

§ 8-5
Arrangement and organization of work
(1) Where the assessment prescribed by Section 8-4 reveals that there is a risk of injury, the master or the company shall ensure that such risk is eliminated by modifying, as necessary, both the working conditions and the hours of work.
(2) If the measures referred to in the first paragraph are not possible or cannot reasonably be implemented, a worker who wants to be assigned other work within the company shall, where possible, be transferred to such other work.

(3) If the measures referred to in the first and second paragraphs are not possible to implement, the company shall document this in writing.

§ 8-6

_Pregnant workers’ right to leave of absence_

(1) If the measures referred to in Section 8-5 cannot reasonably be implemented, a worker falling within the scope of Section 8-1 paragraphs a), b) or c) shall be granted leave of absence for such period as is necessary to eliminate risk of injury.

(2) Otherwise, reference is made to the regulations currently in force concerning right of leave in cases of pregnancy, childbirth, adoption, etc.

Chapter 9

_Special provisions concerning measures for safety and protection_

§ 9-1

_Use of safety and protective equipment for special work operations_

(1) Work outboard while the ship is underway must only take place when it is absolutely necessary. The officer of the watch shall be informed of the work, and shall ensure that adequate safety measures are taken.

(2) During mooring, loading/unloading, and when working in cargo holds, engine rooms, tanks, as well as in places where objects might fall down, protective helmets and safety boots shall be used.

(3) When using tools, machinery, power sprayers, etc. which present a risk of injury to the eyes, protective goggles shall be used if no other protective measures offer sufficient safety.

(4) When products which can be hazardous to health are used for cleaning, instructions for use shall be available. Necessary personal protective equipment such as helmets, face screens, large aprons, gauntlets, suitable safety boots, etc. shall always be used.

(5) If repairs have to be carried out in places where there may be a danger of asbestos dust or dust from materials containing asbestos, protective measures shall be taken during the work, requiring respiratory protection, screening of the working space, ventilation, etc.

§ 9-2

_Safety measures related to the use of high pressure equipment, paint spraying gear, sand blasting equipment, flushing arrangement, etc._

(1) During work where harmful dust or gases may occur, the respiratory organs shall be protected. During spraying of paint, etc. in enclosed spaces, adequate continuous ventilation shall be provided.

(2) Directions for the use of spraying pistols, spraying apparatus, etc. shall be available.

(3) Locking of the spraying pistol trigger in open position shall not be possible. The valve shall be secured against inadvertent release, e.g. by means of a loop.

(4) High pressure hoses and equipment connected to these shall be certified for the working pressure and the liquids for which they are to be used. Damaged high pressure hoses shall not be used.

(5) Heavy spraying equipment with high pressure and heavy recoil must be fastened to a support, which will be so arranged as to remain in the same position even if the spraying equipment is dropped. If the spraying equipment is to be used for flushing through pipe lines, etc. the jet nozzle must be attached to the pipe line before the water pressure is turned on.

(6) Workers engaged in sand blasting shall be equipped with the necessary protective equipment, such as tight fitting goggles, helmets, face screens, fresh air equipment, etc. Air from compressors shall be purified through filters. Workers who will be engaged in the process of sand blasting, or operating high pressure spraying equipment or high pressure flushing equipment, shall be trained for operating the equipment.

(7) Directions for use shall be attached to the high pressure spraying and high pressure flushing equipment. Instructions for the use of the equipment shall furthermore be available on board, where the elements of risk during use of high pressure apparatus and flushing equipment shall be stressed. The instructions for the use of the equipment must be strictly followed.
§ 9-3

Securing of machinery, etc.

(1) Movable parts on machinery, etc. shall be provided with adequate protective arrangements. The inside of lids, covers or other protection that is normally kept closed, as well as dangerous parts of machinery, should be painted in a conspicuous yellow colour. The marking shall not be visible when the protective arrangement is in place.

(2) When machinery or gear is stopped for maintenance or repairs, etc. adequate precautions shall be taken against inadvertent starting.

§ 9-4

Work at a height

(1) When work is carried out where there may be a risk of falling down, a safety harness with attached line shall be used. If the work takes place where a safety harness or belt cannot be used, a net or other equally safe precautions shall be provided when this is necessary to prevent accidents.

(2) Ladders must be so positioned as to ensure their stability during use. Suspended ladders must be attached in a secure manner, so that they cannot be displaced and so that swinging is prevented.

(3) The bearing components of scaffolding must be prevented from slipping, whether by attachment to the bearing surface, provision of an anti-slip device or any other means of equivalent effectiveness, and the load-bearing surface must have a sufficient capacity. It must be ensured that the scaffolding is stable.

(4) Depending on the type of work equipment selected, it shall be decided which measures are suited to minimize the risk workers are exposed to. Where necessary, safety arrangements for fall prevention shall be assembled. Such arrangements shall be designed in such a way, and have the strength to prevent or stop falls, and to the greatest possible extent prevent the injury of workers.

(5) The requirements of Annex 1; Provisions on work equipment for temporary work at a height, shall otherwise apply.

§ 9-5

Use of safety and protective equipment for special work operations on board fishing vessels

In addition to the provisions of Sections 9-1 to 9-4, the following provisions shall apply:

a) When working on deck on board vessels with only one person on board, a safety harness or a belt with a line attached should be used, unless conditions on board make such use dangerous or particularly difficult.

b) Protective helmets shall be worn during mooring, loading and unloading, when the power block arrangement, etc. is used, during work on the trawl deck and in cargo holds, engine rooms and tanks, and also when work is carried out in other places where objects may fall down. Protective boots shall be worn where there is a risk of foot injuries.

c) Persons working on an exposed deck shall be equipped with work vests/flotation vests.

d) Warning signs shall be displayed in places presenting a special risk to persons.

e) Overall rainwear used shall have a conspicuous colour.

f) On vessels of an overall length of 15 metres and above, a reliable communications system shall be arranged between the wheelhouse and working deck.

g) Manoeuvring devices for winches, seine drums, drying tumblers, power block and other lifting and/or hoisting devices shall automatically revert to the neutral position (stop) when they are not used, and they shall be capable of being secured in the neutral position. From the manoeuvring position it shall be possible to observe any tricing and the lifting and hoisting device, or TV surveillance of these devices shall be arranged.

h) The operation of devices referred to in paragraph 3 shall be carried out by persons over 18 years of age.

i) Pull-in equipment for fishing tackle shall have appropriate safety devices to prevent accidents, including emergency stop devices. Emergency stop shall be so arranged that the pull-in equipment stops if a person is pulled towards it.

Chapter 10

Ban on the use of asbestos and certain noxious and health hazardous substances

§ 10-1

Ban on the use of asbestos on board ship

(1) On vessels built on 1 July 1987 or later all use of asbestos is prohibited, except premanufactured asbestos packings and friction coating, etc. which need no adapting work on board.

(2) On existing vessels all asbestos in need of repairs or renewal shall be replaced with equivalent materials as mentioned in the first paragraph.
§ 10-2

Ban on certain chemicals

The following chemicals are not permitted for use on board ship:

a) 2-naphthylamine and salt of 2-naphthylamine (CAS no. 91-59-8);

b) 4-aminobiphenyl and salt of 4-aminobiphenyl (CAS no. 92-67-1);

c) benzidine and salt of benzidine (CAS no. 92-87-5);

d) 4-nitrobiphenyl (CAS no. 92-93-3).

Chapter 11

Provisions on the protection of workers against exposure to chemicals and biological agents

§ 11-1

Scope of application

(1) This Chapter covers all situations where chemicals and biological agents are used on board ship or present in the working environment, including production, handling, storage, disposal, destruction, and waste treatment.

(2) This Chapter also applies to carriage of chemicals unless specifically provided that only chemicals for use on board are covered or other legislation gives stricter or more specific provisions.

§ 11-2

Definitions

For the purposes of this Chapter:

a) Administrative norm means recommended maximum value for the average concentration of a chemical agent in the air within the breathing zone of a worker in relation to a specified reference period.

b) Biological agent means any micro-organism, cell culture and endoparasite the contact with which may provoke infection, allergy or toxicity.

c) Biological limit value for lead means the binding maximum value for the concentration of lead in a person’s blood.

d) Cell culture means the result of in-vitro growth of cells derived from multicellular organisms.

e) Exposure means the harmful effects of chemicals and biological agents to which workers are exposed or risk being exposed.

f) Endoparasites mean parasites which live in the human body during the whole or parts of their life cycle.

g) Limit value means the binding maximum value for the average concentration of a chemical agent in the air within the breathing zone of a worker in relation to a specified reference period.

h) Containment means barriers used to prevent unintended contact between biological agents and humans or the environment.

i) Chemical agent or chemical means any element or compound, on its own or admixed, which may pose a risk to the safety or health of workers, as it occurs in the natural state or as produced, used or released, including release as waste, by any work activity, whether or not produced intentionally.

j) Carcinogenic chemicals and processes mean any chemical which meets the criteria for classification as carcinogenic under the Regulation of 16 July 2002 No. 1139 concerning the classification and marking, etc. of dangerous chemicals.

k) Micro-organism means any cellular or non-cellular microbiological entity, including those which have been genetically modified, capable of replication or of transferring genetic material.

§ 11-3

Provisions on the protection of workers against exposure to chemicals and biological agents

(1) Exposure of workers to biological agents shall be avoided.

(2) If it is not possible to avoid exposure, such exposure shall be reduced to a level which is sufficiently low to give adequate protection to the safety and health of the workers concerned.

(3) The quantities of chemicals to be used on board shall be as small as possible and chemicals which may be injurious to health shall not be used where non-injurious processes and substances are available. If such substitution is not possible, processes and substances which are less injurious to workers’ health shall be used instead.

(4) A biological agent injurious to health shall not be used when another biological agent is available which under the same conditions of use and according to existing knowledge is either non-injurious or less injurious to the health of workers.

(5) Common protective measures of a technical nature or measures, methods or procedures related to the organization of work shall be preferred wherever possible to individual protective measures.
The number of workers engaged in work operations or otherwise running the risk of exposure to chemicals and biological agents shall not be greater than necessary.

§ 11-4

Risk assessment

(1) Any exposure to chemicals and biological agents which poses a health risk to workers shall be identified. The following shall, inter alia, be described:
   a) the chemicals and biological agents that workers are exposed to;
   b) how, and during which activities and in which areas the exposure occurs;
   c) the concentrations involved;
   d) the duration of exposure;
   e) the number of workers susceptible to exposure.

(2) When such exposure has been identified, an assessment of the risk posed by the exposure shall be made. The risk assessment shall be performed on the basis of all available information, including:
   a) information on dangerous properties of chemicals;
   b) information from the supplier on safety and health risks;
   c) information on the risk group of each biological agent;
   d) information on human diseases that may be caused by the biological agents;
   e) information from competent authorities;
   f) information on recommended protective measures and effects of measures taken;
   g) knowledge that a medical condition found in a worker at a special medical examination or otherwise may be directly attributed to that person’s work;
   h) information on the conditions on board in general.

(3) For activities involving exposure to several different chemicals and biological agents, the risk shall be assessed on the basis of the aggregate and combined risk of the chemicals and biological agents.

(4) The risk assessment shall be performed at regular intervals and invariably when there is a change in conditions which may affect workers’ exposure to chemicals and biological agents.

(5) The risk assessment and its results shall be documented in writing, available to the workers and submitted to the Norwegian Maritime Directorate on request.

§ 11-5

Arrangement and organization of work, etc.

(1) Where a risk to the safety or health of workers is identified, necessary measures to remove or reduce such risk shall be taken before work has begun. Steps shall be taken to ensure, inter alia:
   a) the availability of written instructions to ensure safe routines for the storage, handling and carriage of chemicals and biological agents on board;
   b) the use of suitable methods of measurement and measuring equipment that will identify possible chemical exposure risks;
   c) the availability of necessary protective arrangements and personal protective equipment and that such arrangements and equipment are in good working order and adapted to the working situation in each case;
   d) the implementation of necessary technical control measures;
   e) the availability of first-aid equipment and other equipment to prevent or mitigate injuries to workers in the event of incidents and accidents.

(2) Work in narrow and confined spaces, tanks and similar spaces shall be according to instructions which shall always be reviewed before commencing work. The instructions shall ensure that, inter alia:
   a) the oxygen content of the atmosphere is measured before commencing work;
   b) there is a person standing guard during the work operation at the entrance of the space and that this person is provided with necessary and approved communication equipment and protective and rescue equipment.

(3) The ventilation system shall be so designed and dimensioned as to keep the concentration of chemicals at a safe level.

(4) Warning and safety notices shall be used to indicate areas, including piping and tanks, where there is a risk of exposure to chemicals.

(5) Written instructions shall be set up to collect, handle and examine samples from persons and animals which may contain biological agents hazardous to health.

§ 11-6

Hygienic measures

(1) Measures shall be taken to ensure that workers do not eat, drink or smoke in areas where there is a risk of exposure to chemicals and biological agents.

(2) Floors, walls and other surfaces in areas which may be contaminated by chemicals shall be cleaned at regular intervals.

(3) Workers shall have at their disposal suitable and satisfactory toilets and washrooms where, if appropriate, eyewash water and antiseptic skin care products shall be available.
(4) Personal protective equipment and working clothes which may be contaminated by chemicals and biological agents shall if necessary be taken off when the workers leave the workplace and be kept separately from other clothes until disinfected, cleaned or, where necessary, destroyed.
(5) Containers or similar arrangements for contaminated working clothes or protective equipment shall be conspicuously marked.

§ 11-7

Medical examination

(1) Where the risk assessment shows that there is still a risk, despite the protective measures taken in each case, to the safety or health of a worker, he or she shall receive an appropriate medical examination.
(2) The medical examination shall take place before the worker commences work and at regular intervals thereafter. The doctor decides the frequency and content of the examination on the basis of the nature, degree and duration of the exposure and the health condition of the worker. Steps shall be taken to ensure that the worker is provided with the necessary information about the need for future medical examinations.
(3) If the medical examination shows that a worker suffers from a condition which may be attributed to exposure to chemicals or biological agents on board, measures shall be taken to examine the health condition of all workers who have endured similar exposure.
(4) Any worker who is to work with lead and lead compounds shall undergo a compulsory medical examination before commencing such work. The medical examination shall include a clinical examination and measurement of the lead content of the blood. Measurement of the lead content of the blood shall be performed every three months. If three consecutive checks show a lead content of the blood which is lower than 0.5 micromol per litre of blood for women in their fertile age and 1.0 micromol per litre of blood for other workers, checks of the lead content of the blood may be made once a year as long as the exposure level and the working conditions remain the same.
(5) Workers shall be offered safe and effective vaccination against biological agents to which they may be exposed. Workers shall be provided with information on the advantages and disadvantages of such vaccination.
(6) Where a medical examination is carried out as mentioned in this provision, the journal shall be available for at least ten years after the end of exposure. For workers exposed to carcinogenic chemicals or to any other special health risk, the journal shall be available for at least 60 years after the last known exposure.

§ 11-8

Measures in the event of non-anticipated exposure

(1) An emergency preparedness plan shall be prepared for unforeseen situations and accidents which may cause abnormally high exposure. Upon use of biological agents, such an emergency preparedness plan shall be prepared for biological agents which, pursuant to Section 13-1, are classified as Group 3 or Group 4 biological agents. The same requirement also extends to cases otherwise, which are considered to pose a risk of unforeseen situations and accidents which may lead to the dissemination of biological agents that can cause serious infection or disease. The emergency preparedness plan shall be prepared on the basis of the risk assessment and shall contain, inter alia:
   a) information on special hazards which may arise in unforeseen situations and accidents;
   b) guidance for incident alerting and measures to be taken to manage the situation;
   c) guidance for use of external assistance or rescue service.
(2) If an unforeseen situation or accident arises or occurs, the emergency preparedness plan shall be put into effect immediately. The workers shall as soon as possible be informed about the situation, the cause of the exposure and the measures taken.
(3) Emergency preparedness plans shall be available to the workers and the external rescue service.
(4) Drills in accordance with the emergency preparedness plan shall be conducted at regular intervals.
(5) The Norwegian Maritime Directorate shall immediately and as quickly as possible be informed about any accident or incident which may have brought about the dissemination of a biological agent that could cause human disease.

§ 11-9

Register of workers exposed to chemicals and biological agents

(1) A register shall be kept for each ship of workers that, through use or otherwise are, or may be, exposed to:
   a) carcinogenic chemicals;
   b) other chemicals which according to the risk assessment pose a special health risk;
   c) biological agents classified pursuant to Section 13-1 as Group 3 or 4.
(2) The register shall identify the chemicals and biological agents to which the worker is exposed and provide information on how the worker has been exposed, and the duration and degree of the exposure.
(3) The register shall be available for at least 60 years after the end of exposure for workers who have been exposed to chemicals, and for at least ten years after the end of exposure for workers who have been exposed to biological agents.
(4) The register shall be available for at least 60 years if the exposure to biological agents may cause infection:
   a) by biological agents known to be capable of provoking lasting or hidden infections;
   b) which on the basis of existing knowledge cannot be identified before the disease breaks out several years later;
   c) which has a particularly long incubation period before the outbreak of the disease.
d) which leads to a disease that sometimes flares up again over a longer period in spite of the treatment received, or which may lead to serious accompanying diseases in the longer term.

(5) Any worker entered in the register shall be informed of this and have access to information relating to his or her case. If the employment relationship is terminated or if the worker so requires, such information shall be provided in writing.

(6) Doctors carrying out medical examinations as specified in Section 11-7 shall be informed of and have access to the information mentioned in the first paragraph.

(7) The register shall be forwarded to the Norwegian Maritime Directorate if the company discontinues its activity.

§ 11-10
Storage, handling and carriage of waste which may contain chemicals or biological agents

(1) Measures shall be taken to ensure that the collection, storage and removal of waste is carried out without health risk to workers.

(2) Such waste shall be stored in containers which are unambiguously and conspicuously marked and, where necessary, completely tight.

(3) Chemical waste shall be safely disposed of or delivered to approved reception facilities for special waste.

(4) Where necessary, biological waste shall be rendered harmless by appropriate pre-treatment.

§ 11-11
Training and information

(1) Steps shall be taken to ensure that workers are provided with and have understood the necessary training and information so that exposure may be avoided or reduced to the greatest possible degree. The training shall be provided on the basis of all available information and written instructions drawn up to establish safe routines for the storage, handling and carriage of chemicals and biological agents on board.

(2) The training and information shall give special consideration to the following:
   a) the use of records of substances and products, including identification of the health hazardous substances used and stored on board and the risk of exposure;
   b) the health hazards that biological agents may constitute;
   c) precautionary measures to be taken to avoid exposure;
   d) information on measurements made of the contamination of the working atmosphere and their results;
   e) rules on hygiene;
   f) identification of the protective equipment to be used and how to use it;
   g) measures to be taken and emergency preparedness plans to be put into effect in the event of unforeseen situations and accidents and incidents.

(3) The training shall be provided before commencing work and it shall be repeated at regular intervals and adapted to new or changed conditions.

(4) Completed training shall be documented in writing.

Chapter 12
Special provisions concerning the protection of workers against exposure to chemicals

§ 12-1
Records of substances and products

(1) Records of substances and products shall be kept which show the chemicals to be used on board.

(2) The records of substances and products shall contain all information on the chemicals which is necessary for their intended use. Such information may include, inter alia, health, environment and safety product data sheets, other information provided by the supplier, information from competent authorities and relevant literature.

(3) The records of substances and products shall be kept readily accessible to the workers.

§ 12-2
Marking

(1) Chemicals for use on board shall be appropriately marked. The marking shall be in accordance with the information in the health, environment and safety product data sheets and shall exhibit, inter alia:
   a) the technical name, substance/product name and an indication of its contents;
   b) the hazard class and hazard symbol;
   c) a warning against hazards and necessary precautions;
   d) the name and address of the manufacturer.
(2) If chemicals are stored in a separate and locked room, the storage room shall be conspicuously marked with the hazard classes and hazard symbols of the chemicals stored.

(3) Marking as specified in this provision shall be in a language or languages understood by the workers concerned.

(4) Instructions shall be prepared which ensure that the requirements pursuant to this provision are complied with at all times.

§ 12-3
Packaging

Chemicals for use on board shall be stored in their original packaging or other equivalent and marked packaging. If the original packaging is damaged or the chemical is re-packaged, the new packaging must be of a chemical-resistant type which cannot give rise to confusion.

§ 12-4
Measurement of contamination of the working atmosphere

(1) Measurements of the contamination of the working atmosphere shall be made at regular intervals and invariably in the event of any change that may influence the workers' exposure to chemicals.

(2) Measurements shall be made so as to be capable of identifying any exposure to workers.

(3) Measurements of contamination and their results shall be documented in writing.

§ 12-5
Limit values

(1) The following limit values for lead, vinyl chloride and benzene in the working atmosphere must not be exceeded:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Reference period</th>
<th>Limit value in ppm</th>
<th>Limit value in mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>eight hours</td>
<td>-</td>
<td>0.05</td>
</tr>
<tr>
<td>Vinyl chloride</td>
<td>eight hours</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Benzene</td>
<td>eight hours</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

(2) The biological limit value for lead which must not be exceeded is 0.5 micromol per litre of blood for women in their fertile age and 1.5 micromol per litre of blood for other workers.

§ 12-6
Measures to be taken where limit values or administrative norms for contamination are exceeded

(1) Where a limit value or administrative norm is exceeded preventive and protective measures shall immediately be taken to improve the situation.

(2) The workers concerned shall immediately be informed of such incidents.

§ 12-7
Special measures for work with carcinogenic chemicals

(1) Where possible, carcinogenic chemicals and processes shall be kept within a closed system.

(2) If it is not technically possible to use a closed system, measures shall be taken to ensure that the exposure is a low as possible and not exceeding a safe level.

§ 12-8
Special measures for sandblasting work

Sand and other agents for use in sandblasting on board ship shall contain maximum 1 weight percentage of quartz or other crystalline silica.

§ 12-9
Special measures in connection with flammable and explosion hazardous chemicals and volatile chemicals

(1) Measures shall be taken to prevent the occurrence of dangerous concentrations of flammable chemicals or dangerous quantities of reactive chemicals.
If measures as referred to in the first paragraph are not practicable, measures shall be taken to avoid ignition sources which may cause fire or explosion or any other condition which may cause reactive chemicals to lead to dangerous situations.

Measures shall be taken to prevent injuries to workers in the event of fire or explosion or any other dangerous situation likely to be caused by reactive chemicals.

§ 12-10

Records

(1) Separate records shall be kept of chemical agents used on board. The records shall contain information on purchases, storage conditions and quantities of the following chemicals:
   a) organic solvents and detergents of any kind;
   b) strong/concentrated alkalis;
   c) insecticides and rat poisons;
   d) cooling media for refrigerating systems;
   e) antifreezes;
   f) strong/concentrated acids;
   g) hydrazine hydrate;
   h) filmtec membrane preservative;
   i) carcinogenic chemicals and other chemicals which according to the risk assessment pose a special health risk.

(2) The records shall in each case identify the person to whom a chemical agent is handed out, the quantity involved and the intended use of the chemical. The workers shall sign for the chemicals handed out and thereby acknowledge that they are familiar with both the health hazards associated with the use of the chemicals and the necessary protective measures.

(3) The workers shall have access to the information contained in the records.

(4) The records shall be available for at least three years.

§ 12-11

Change of work

(1) Where necessary to protect the health of a worker, he or she shall be assigned tasks and duties where there is no risk of exposure to chemicals.

(2) Workers engaged in work with lead or lead compounds shall be assigned other work for a period of at least three months if the following limit values are exceeded:
   a) Women in their fertile age with lead content of the blood exceeding 0.75 micromol per litre of blood or with three consecutive quarterly checks showing a lead content per litre of blood in the 0.5-0.75 range shall be assigned other work until the lead content of the blood has decreased to less than 0.5 micromol per litre of blood.

   b) Other workers with lead content of the blood exceeding 2.0 micromol per liter of blood or with three consecutive quarterly checks showing a lead content per litre of blood in the 1.5-2.0 range shall be assigned other work until the lead content of the blood has decreased to less than 1.5 micromol per litre of blood.

Chapter 13

Special provisions concerning the protection of workers against exposure to biological agents

§ 13-1

Classification of biological agents

(1) Biological agents shall be classified into four risk groups, according to their level of risk of infection:
   a) Group 1 biological agent means one that is unlikely to cause human disease.
   b) Group 2 biological agent means one that can cause human disease and might be a hazard to workers, while unlikely to spread to society at large, and for which there is usually effective prophylaxis or treatment available.
   c) Group 3 biological agent means one that can cause severe human disease and present a serious hazard to workers; it may present a risk of spreading to society at large, but there is usually effective prophylaxis or treatment available.
   d) Group 4 biological agent means one that causes severe human disease and is a serious hazard to workers; it may present a high risk of spreading to society at large, and there is usually no effective prophylaxis or treatment available.

(2) A list of biological agents classified into risk groups 2, 3, or 4 is to be found in Annex 2. When working with microorganisms not included in that list an assessment of risk group shall in each case be made on the basis of the criteria laid down in the first paragraph.
§ 13-2  
**Warning notices**

(1) Areas where there is a risk of any biologically determined health hazard shall be marked with the following warning notice:
(2) The symbol is black on a yellow background surrounded by a black triangle.

![Warning Symbol](image)

§ 13-3  
**Notification to the Norwegian Maritime Directorate**

(1) Advance notification to the Norwegian Maritime Directorate is required for first-time use of biological agents which pursuant to Section 13-1 are classified as Group 2, Group 3 or Group 4 biological agents.
(2) The first paragraph notwithstanding, advance notification to the Norwegian Directorate is required for first-time use of any new Group 4 biological agent and first-time use of any new Group 3 biological agent if the classification is made pursuant to Section 13-1, second paragraph.
(3) The notification shall be submitted not later than 30 days before the commencement of work.
(4) The notification shall contain the following information:
   a) name and address of the company;
   b) name and call sign of the vessel;
   c) name and position of the person or persons who are responsible for health, environment and safety on board;
   d) the nature of the biological agent;
   e) the result of the risk assessment performed pursuant to Section 11-4.;
   f) planned protection and safety measures.
(5) A new notification shall be submitted if changes are made which affect health, safety and the environment on board, and which renders the content of an earlier notification obsolete.

§ 13-4  
**Measures for the containment of biological agents**

(1) Such containment measures as are provided in Sections 13-5. and 13-6. and necessary to limit the risk of exposure shall be taken.
(2) On vessels with laboratories where workers are or may be exposed to biological agents, or where animals used for experiments which have been intentionally infected with Group 2, Group 3 or Group 4 biological agents are handled, or which are suspected to be carriers of such agents, the following containment measures shall be taken to limit to the greatest possible degree the risk of infection:
   a) at least containment level 2 for activities associated with Group 2 biological agents;
   b) at least containment level 3 for activities associated with Group 3 biological agents;
   c) at least containment level 4 for activities associated with Group 4 biological agents.
(3) In laboratories the purpose of which is not to carry out work involving biological agents, but where nevertheless materials are handled which may contain biological agents that may cause human diseases, at least containment level 2 shall be chosen.
(4) Containment levels 3 or 4 shall be applied in cases where, on the basis of existing knowledge or suspicion, those levels are deemed necessary.
(5) For industrial processes where Group 2, Group 3 and Group 4 biological agents are used, the following measures shall be taken:
   a) those containment principles that follow from the second paragraph of this provision;
   b) any measure that competent authorities have decided relative to industrial use of biological agents in risk groups 2, 3, or 4;
   c) for activities to which this provision applies where it has not been possible to make a final classification of a biological agent but there are indications that the planned use may constitute a serious health hazard for the workers, the work shall be carried out in facilities which at least conform to containment level 3.
(6) In isolation units where there are persons or animals that are or are presumed to be infected by Group 3 or Group 4 biological agents, such containment measures as are mentioned in column A of Section 13-5, and deemed necessary in the risk assessment shall be taken.
§ 13-5

Containment measures in laboratories

Containment measures relative to containment level in laboratories:

<table>
<thead>
<tr>
<th>Containment measure</th>
<th>Containment level</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Work premises shall be separated from any other activity in the same building</td>
<td>No</td>
<td>Recommended</td>
<td>Yes</td>
</tr>
<tr>
<td>2. Air intakes and outlets of workplace shall be filtered by means of absolute filters or similar equipment</td>
<td>No</td>
<td>Yes, outlet airstream</td>
<td>Yes, outlet airstream</td>
</tr>
<tr>
<td>3. Only designated workers shall be permitted to enter</td>
<td>Recommended</td>
<td>Yes</td>
<td>Yes, by way of air lock</td>
</tr>
<tr>
<td>4. Workplace shall have shut-off arrangements which enable disinfection</td>
<td>No</td>
<td>Recommended</td>
<td>Yes</td>
</tr>
<tr>
<td>5. Disinfection procedures shall be specified</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>6. Workplace pressure shall be lower than atmospheric pressure</td>
<td>No</td>
<td>Recommended</td>
<td>Yes</td>
</tr>
<tr>
<td>7. Effective control of carriers, e.g. rodents and insects, shall be ensured</td>
<td>Recommended</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>8. Surfaces shall be watertight and easy to clean</td>
<td>Yes, workbench surface</td>
<td>Yes, workbench and floor surfaces</td>
<td>Yes, workbench, wall, floor and ceiling surfaces</td>
</tr>
<tr>
<td>9. Surfaces shall withstand acids, alkaline substances, solvents and disinfectants</td>
<td>Recommended</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>10. Biological agents shall be kept in a safe place</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes, in a place with entry control-</td>
</tr>
<tr>
<td>11. There shall be an observation window or similar arrangement making it possible to watch persons on the inside</td>
<td>Recommended</td>
<td>Recommended</td>
<td>Yes</td>
</tr>
<tr>
<td>12. Each individual laboratory shall have a complete set of equipment</td>
<td>No</td>
<td>Recommended</td>
<td>Yes</td>
</tr>
<tr>
<td>13. Handling of infected material and all animals shall take place in a safety room, in an isolated compartment or in any other suitable enclosure</td>
<td>Where necessary</td>
<td>Yes, if the infection is airborne</td>
<td>Yes</td>
</tr>
<tr>
<td>14. Incineration plant for destruction of dead animals shall be available</td>
<td>Recommended</td>
<td>Yes (available)</td>
<td>Yes, on location</td>
</tr>
</tbody>
</table>

§ 13-6

Containment measures for industrial processes

Containment measures relative to containment level for industrial processes:

<table>
<thead>
<tr>
<th>Containment measure</th>
<th>Containment level</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
</table>
1. Viable micro-organisms shall be contained in a system that physically shuts the work operation off from the surrounding environment
   - Yes
   - Yes
   - Yes

2. Gases emitted from the shut-off system shall be so treated as to reduce spreading to a minimum and avoid spreading
   - reduce spreading to a minimum
   - avoid spreading

3. Sampling, transferring of substances to a shut-off system and transferring viable micro-organisms to another shut-off system shall be so performed as to reduce spreading to a minimum and avoid spreading
   - reduce spreading to a minimum
   - avoid spreading

4. Liquid media shall not be removed from the shut-off system unless the viable micro-organisms are rendered inert by recognized methods
   - rendered inert by recognized methods
   - rendered inert by recognized chemical or physical methods
   - rendered inert by recognized chemical or physical methods

5. Shut-off mechanisms shall be so designed as to reduce spreading to a minimum and avoid spreading
   - reduce spreading to a minimum
   - avoid spreading

---

6. Shut-off systems

6.1. Shut-off systems shall be placed in a shut-off zone
   - Optional
   - Optional
   - Yes, zone designed for the purpose

6.2. Biological danger warning notice shall be posted
   - Optional
   - Yes
   - Yes

6.3. Only designated workers shall be permitted to enter
   - Optional
   - Yes
   - Yes, by way of air lock

6.4. Personnel shall wear protective clothing
   - Yes, working clothes
   - Yes
   - All clothes must be changed

6.5. Personnel shall have access to decontamination units and sanitary facilities
   - Yes
   - Yes
   - Yes

6.6. Personnel shall take a shower before leaving the zone
   - No
   - Optional
   - Yes

6.7. Waste water from washes and showers shall be collected and treated to render micro-organisms inert before it is let out
   - No
   - Optional
   - Yes

6.8. The controlled zone shall have sufficient ventilation to reduce air pollution to a minimum
   - Optional
   - Optional
   - Yes

6.9. The controlled zone shall have a pressure that is lower than the atmospheric pressure
   - No
   - Optional
   - Yes

6.10. The intake and outlet airstreams of the controlled zone shall be filtered by means of an absolute filter
   - No
   - Optional
   - Yes

6.11. The controlled zone shall be so designed as to be capable of containing the whole content of the shut-off system in the event of system overflow
   - No
   - Optional
   - Yes
Chapter 14
Provisions concerning the protection against mechanical vibration

Chapter added by Regulation of 6 July 2005 No. 800.

§ 14-1
Scope of application
This Chapter covers activities in which workers are or are likely to be exposed to risks from mechanical vibration during their work and stay on board.

§ 14-2
Definitions
For the purposes of this Chapter:

a) hand-arm vibration means the mechanical vibration that, when transmitted from work equipment to the human hand-arm system, entails risks to the health and safety of workers, in particular vascular, bone or joint, neurological or muscular disorders;

b) whole-body vibration means the mechanical vibration that, when transmitted to the whole body, entails risks to the health and safety of workers, in particular trauma of the spine;

c) daily exposure value means the energy equivalent mean value of the frequency-weighted acceleration throughout the working day, normalized to an eight-hour reference period \((A(8))\).

\[
A(T) = \frac{\int A(T) \, dt}{8}
\]

where \(A(T)\) equals the daily exposure to vibration throughout a working day of a total duration of \(T\) hours. For hand-arm vibration \(A(T)\) is determined pursuant to NS-EN ISO 5349-1 (2001), Chapters 4 and 5 and Annex A. For whole-body vibration \(A(T)\) is determined pursuant to NS ISO 2631-1 (1997), Chapters 5 to 7 and Annexes A and B as the daily exposure value in the axial direction giving the highest value where frequency-weighted acceleration values for a sitting, lying or standing person are employed;

d) daily exposure limit value, \(A(8)\) means the daily exposure value which shall not be exceeded;

e) daily exposure action value means the daily exposure value which requires the implementation of measures intended to reduce risk to a minimum.

§ 14-3
Exemptions
There may be exemptions from the provisions of Section 14-9.
Exemptions may be granted from the provisions on whole-body vibration. Such exemptions shall take into consideration that the technical state of the art on board and the specific characteristics of the workplace are such that it is not possible to comply with the exposure limit value, despite the technical and/or organizational measures taken.
Exemptions may be granted in cases where:

a. the exposure of a worker to mechanical vibration is usually below the action values, but varies markedly from one work period to the next and may occasionally exceed the limit value;

b. the exposure value averaged over 40 hours is less than the limit value; and

c. there is evidence showing that the risks from the pattern of exposure to the work are lower than those from exposure at the limit value.

Before an exemption from the second and third paragraphs is granted, the opinion of the two sides of industry shall be heard or presented. Exemptions pursuant to this provision shall be accompanied by conditions which guarantee that the risks resulting from vibration are reduced to a minimum and that the workers concerned are subject to increased health surveillance. Exemptions may not be granted for a longer period than four years.
§ 14-4

Limit values

Hand-arm vibration:
The daily exposure limit value for an eight-hour reference period, A(8), is set to 5 m/s².

Whole-body vibration:
The daily exposure limit value for an eight-hour reference period, A(8), is set to 1.1 m/s².

§ 14-5

Action values

Hand-arm vibration:
The daily exposure action value for an eight-hour reference period, A(8), is set to 2.5 m/s².

Whole-body vibration:
The daily exposure action value for an eight-hour reference period, A(8), is set to 0.5 m/s².

§ 14-6

Risk assessment

The exposure of workers to mechanical vibration shall be assessed. Measurements of the level of exposure to vibration shall be carried out if necessary. Assessments and measurements shall be repeated on a regular basis. The risk assessments and the measurements shall be repeated on a regular basis and shall be carried out by qualified personnel with competency in vibration measurements and assessments of these. If the company lacks qualified personnel, the employer shall use external services or persons.

The results from the vibration measurements and the risk assessments shall be stored in order to allow the information to be applied at a later time.

The level of exposure to mechanical vibration may be assessed by means of observation of specific work operations and reference to relevant information on the probable magnitude of the vibration corresponding to the equipment or the types of equipment used in the particular conditions of use, including such information provided by the manufacturer of the equipment. The assessment pursuant to this provision shall not require the use of specific measurement apparatus or appropriate methodology.

The risk assessment shall take particular account of:

a) the level, type and duration of exposure, including any exposure to periodically intermittent vibration or repeated shocks;
b) the exposure limit values and the exposure action values;
c) any effects concerning the health and safety of workers at particularly sensitive risk;
d) any indirect effects on worker safety resulting from interactions between mechanical vibration and the workplace or other work equipment;
e) information provided by the manufacturers of work equipment;
f) the existence of replacement equipment designed to reduce the levels of exposure to mechanical vibration;
g) specific working conditions such as low temperatures, etc.;
h) the extension of exposure on board to whole-body vibration beyond normal working hours;
i) appropriate information obtained from health surveillance, including published information, as far as possible.

Amended by Regulation of 28 June 2006 No. 1588.

§ 14-7

Vibration measurements

If measurements are carried out as a basis for the risk assessment, the measurement values shall be representative of the workers’ exposure to vibration. Methods and equipment shall be adapted to ambient factors and the particular characteristics of the vibration to be measured.

Measurements of hand-arm vibration shall be carried out in accordance with NS-EN ISO 5349-2 (2001). In the case of devices which need to be held with both hands, measurements shall be made on each hand. It is the highest value in the two measurement series that indicates the worker’s exposure level.

Measurements of whole-body vibration shall be carried out in accordance with NS-ISO 2631-1 (1997).

Amended by Regulation of 28 June 2006 No. 1588.

§ 14-8

Measures in the event of exceeded action values

If the action values are exceeded, the necessary technical and organizational measures shall be implemented to reduce risks to a minimum. The following shall in particular be provided:

a) alternative working methods that require less exposure to mechanical vibration;
b) the choice of work equipment of appropriate ergonomic design and, taking account of the work to be done, producing the least possible vibration;

c) the provision of auxiliary equipment that reduces the risk of injuries caused by vibration, such as seats that effectively reduce whole-body vibration and handles which reduce the vibration transmitted to the hand-arm system;

d) appropriate maintenance programmes for work equipment, the workplace and workplace systems;

e) the design and layout of workplaces and work stations;

f) adequate information and training to instruct workers to use work equipment correctly and safely in order to reduce their exposure to mechanical vibration to a minimum;

g) limitation of the duration and intensity of the exposure;

h) appropriate work schedules with adequate rest periods;

i) the provision of protective clothing to protect exposed workers from cold and damp.

§ 14-9

*Measures in the event of exceeded limit values*

If the limit values are exceeded, the necessary measures to reduce exposure to below the limit values shall be implemented immediately.

The cause of exceeded limit values shall be investigated, and the necessary corrective measures shall be implemented.

§ 14-10

*Medical examination*

Where the risk assessment shows that the worker is exposed to vibration exceeding the action values mentioned in Section 14-5, and which constitute a risk to the health of a worker, he or she shall receive an appropriate medical examination. The worker shall also receive an appropriate medical examination if the exposure is of such a kind that it can be directly linked to an identifiable health injury or disease, it is likely that the health injury or the disease will occur under special work conditions, and techniques for identifying health injuries and diseases have been tested out.

The medical examination shall be able to uncover any health effects caused by vibration and form the basis of preventive measures or other measures which may reduce the worker’s risk of a health injury.

The doctor decides the frequency and content of the examination on the basis of the nature, degree and duration of the exposure and the health condition of the worker.

The worker shall be informed of the result of the medical examination. If further health examinations following the end of the exposure are necessary, the worker shall be informed.

Amended by Regulation of 28 June 2006 No. 1588.

§ 14-11

*Medical examination follow-up*

If the medical examination uncovers illness or other adverse health effects which the doctor thinks may be caused by exposure to vibration at the workplace:

a) the risk assessment shall be reviewed, including taking the advice of competent health personnel or public authority into consideration;

b) measures necessary to remove or reduce the risk of work which exposes the worker to vibration shall be implemented;

c) the worker shall be informed;

d) the worker shall be assigned other work pursuant to Section 14-12.

e) the employer shall introduce continued health surveillance and ensure that the health condition of all workers who have endured similar exposure are examined. In such cases, the doctor, qualified occupational health personnel or the Norwegian Maritime Directorate may recommend that exposed persons undergo a medical examination.

Amended by Regulation of 28 June 2006 No. 1588.

§ 14-12

*Change of work*

Where necessary to protect the health of a worker, the company shall as far as practicable ensure that workers are assigned other work within the organization where there is no risk of health hazardous exposure to vibration.
**§ 14-13**

*Information and training*

The worker and the safety representative shall receive training and information in accordance with the result of the risk assessments. They shall receive information and training in regard to:

a) preventive measures to remove the risk of mechanical vibration or to reduce the risk to a minimum;
b) limit values and action values;
c) the results of the assessments and measurements carried out and the potential injury arising from the work equipment in use;
d) why and how to detect and report signs of injury;
e) the circumstances in which workers are entitled to health surveillance;
f) safe working practices to minimize exposure to mechanical vibration.

**§ 14-14**

*Transitional provisions*

The implementation of the provisions of Section 14-9 concerning work equipment shall apply as of 6 July 2005 at the earliest, if the work equipment used was at the disposal of the workers prior to 6 July 2007, and the equipment is incapable of complying with exposure limit values, even when taking account of the latest technical developments and organizational measures.

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**Chapter 15**

*Provisions concerning the protection against noise*

**§ 15-1**

*Objective*

This Chapter shall ensure that the health and safety of workers is protected against risks arising or likely to arise when the workers are exposed to noise, and that troublesome noise is counteracted.

**§ 15-2**

*Scope of application*

This Chapter covers all ships where workers are or are likely to be exposed to noise during their work and stay on board.

**§ 15-3**

*Definitions*

For the purpose of this Chapter, the following definitions shall apply:

a) *Employer*: as defined in Sections 1-3 and 1-4, cf. Regulations of 31 January 1986 No. 222 concerning the scope of application of the Seamen’s Act § 1;
b) *Work group I*: working conditions where continual concentration is required or where there is a need for effortless conversation and in messrooms and recreation rooms;
c) *Work group II*: working conditions where it is important to lead conversations or where precision, speed or attention is required;
d) *Work group III*: working conditions with noisy machines and equipment under conditions not covered by working groups I and II;
e) *Daily noise exposure level, LEX,8h*: equivalent level for a normal eight-hour working day as defined by international standard ISO 1999:1990 point 3.6. It covers all noises present at work;
f) *Equivalent sound level, L_{pAeq}, T*: energy-average of the varying A-weighted sound level over a period of time T,
g) *Exposure limit values*: exposure values which require immediate actions if they are exceeded;
h) *Impulsive noise*: high-intensity noise of short time duration;
i) *Exposure action value*: exposure values which requires actions to be taken in order to reduce the health risk and unfortunate strain to a minimum;
j) *Peak sound pressure, LpC,peak*: sound level measured with a frequency weight curve C and time weighting «PEAK»;
k) *Weekly noise exposure level, LEX,8h*: average of the daily noise exposure levels for a nominal week of five eight-hour working days as defined by international standard ISO 1999:1990, point 3.6.
§ 15-4

Derogations

(1) In exceptional situations where, because of the nature of the work, the full and proper use of hearing protectors would be likely to cause greater risk to health or safety than not using such protectors, the Norwegian Maritime Directorate may grant derogations from the provisions of Section 15-8.

(2) The derogations referred to in paragraph 1 shall be granted following consultations with both sides of industry. Opinions may be submitted from experts, including doctors. Such derogations must be accompanied by conditions which guarantee that the resulting health risk is reduced to a minimum. When granting derogations, the shipowner and master shall supervise the workers for whom derogations have been granted.

(3) Derogations shall apply for a limited period of time, and shall be granted for maximum four years at a time. The Norwegian Maritime Directorate may withdraw the derogation as soon as the justifying circumstances no longer obtain.

§ 15-5

Systematic prevention of noise exposure

(1) The work shall be planned and carried out in such a manner as to protect the workers against noise. Measures shall be taken at source as far practicable with regard to technical improvements, or by limiting the duration and intensity of sound exposure in other ways.

(2) Technical devices shall be arranged, used and maintained in such a way that unnecessary noise does not arise.

§ 15-6

Risk assessment

(1) The employer shall ensure that risk assessments of the workers’ exposure to noise are carried out. The risk assessments shall be kept up to date on a regular basis, particularly when significant changes affect the noise exposure or when the results of health surveillance show it to be necessary. The documentation from the risk assessments shall be kept readily accessible to everyone on board in order for the information to be applied at a later point in time.

(2) The risk assessment shall take particular account of:
   a) the level, type and duration of exposure, including any exposure to impulse or percussive noise;
   b) whether the working condition is categorized as work group I, II or III;
   c) whether the workers belong to a particularly sensitive risk group;
   d) the exposure limit values and the exposure action values;
   e) the health and safety of the workers when it comes to interactions between noise and vibrations, and between noise and work-related ototoxic substances (substances that may cause hearing damages);
   f) any indirect effects of workers’ health and safety resulting from interactions between noise and warning signals or other sounds that need to be observed in order to reduce the risk of accidents;
   g) the effect of extension of exposure to noise beyond normal working hours;
   h) information on noise emission provided by manufacturers of work equipment;
   i) the existence of alternative work equipment designed to reduce the noise emission;
   j) appropriate information obtained following health surveillance, including published information, as far as possible; and
   k) the availability for hearing protectors.

(3) When preparing the individual risk assessments, the Act of 14 April 2000 No. 31 relating to the processing of personal data shall apply.

§ 15-7

Action values

(1) Action values for noise exposure:
   a) lower exposure action values for work group I: LEX,1h = 55 dB(A)
   b) lower exposure action values for work group II: LEX,1h = 70 dB(A)
   c) lower exposure action values for work group III: LEX,8h = 80 dB(A)
   d) upper exposure action values: LEX,8h = 85 dB(A) and LpC,peak = 130 dB(C).

(2) For work groups I and II, noise from the worker’s own activities shall not be a part of the assessment for the lower exposure action values, provided that the worker can disrupt the noise. For messrooms and recreation rooms, only background noise from installations, adjacent premises and surroundings shall be included in the assessment.

(3) The effect of hearing protectors shall not be taken into consideration in connection with the exposure action values.

§ 15-8

Noise exposure limit values

(1) Noise exposure limit values:
   a) Daily noise exposure level is LEX,8h: 85 dB(A)
   b) Peak value of sound pressure value, LpC,peak: 130 dB(C) Peak.
The determination of the worker’s effective noise exposure shall take account of the attenuation provided by the individual hearing protectors worn by the worker.

In duly justified circumstances, for activities where daily noise exposure varies markedly from one working day to the next, the weekly noise exposure level in place of the daily noise exposure level in accordance with the first paragraph may be used, on condition that:

a) the weekly noise exposure level as shown by adequate monitoring does not exceed the exposure limit value of 85 dB(A); and

b) necessary measures are taken in order to reduce the risk associated with these activities to a minimum.

§ 15-9

Noise measurements

(1) The methods and apparatus used shall be adapted to the prevailing conditions particularly in the light of the characteristics of the noise to be measured, the length of exposure and ambient factors that may be of importance for the measurement results.

(2) Measurements of the workers’ exposure to noise shall be carried out in accordance with ISO 1999:1990. In mapping the noise levels in the various areas of the ship, ISO 2923 shall be used. The documentation of the measurement results shall be kept on board, and presented on request to the workers as well as to the Norwegian Maritime Directorate.

(3) The measurements and assessments shall be carried out by competent personnel with noise mapping expertise.

(4) When measuring the noise level, the vessel shall be in operation with a propulsion machinery load of at least 80 percent of the total propulsion output, where also the auxiliary machinery, ventilation system and other arrangements which are used continuously shall be running.

(5) For vessels with dynamic positioning (DP), noise measurements shall also be carried out when the ship keeps its positioning by means of such equipment. Such measurements shall be carried out with at least 40% load on the system.

§ 15-10

Measures to be taken in the event of exceeded exposure action values

(1) On the basis of the risk assessments referred to in Section 16-6, if the upper exposure action values are exceeded, the employer shall establish and implement necessary technical and organisational measures intended to eliminate or reduce the exposure to noise to a minimum, taking into account for instance:

a) the choice of appropriate work equipment, taking into account the work to be done, emitting the least possible noise;

b) other working methods that require less exposure to noise;

c) workplace arrangements and implementation of measures in the workplace and adjacent areas;

d) information and training with regard to health and safety risks associated to noise, including the instruction of workers in proper use of noisy work equipment;

e) noise reduction by technical means:
1. reducing airborne noise, e.g. by shields or sound-absorbent coverings; and
2. reducing structure-borne noise, e.g. by damping or isolation;

f) maintenance programmes for work equipment, working areas and workplaces;

g) organisation of work to limit the duration and intensity of the exposure and to get adequate rest periods in noiseless areas.

(2) The employer shall control the effects of the measures that are taken.

§ 15-11

Measures to be taken in the event of exceeded exposure limit values

(1) If the exposure limit values are exceeded, immediate actions shall be taken to reduce the noise exposure to below the exposure limit values.

(2) The reason why overexposure has occurred shall be identified in order to assess whether additional necessary actions shall be taken to avoid that the exposure limit values are exceeded again.

(3) If it is not technically possible, and the exposure risk makes it necessary, the noise area shall be delimited and the access restricted.

§ 15-12

Communication between main engines and bridge

On the engine platform of main engines where the noise level exceeds 75 dB(A), there shall be a special device that makes good communication with the wheelhouse possible.
§ 15-13

Signs

Based on the risk assessment, cf. Section 15-6, working areas where the workers are likely to be exposed to noise exceeding the exposure action values shall be fitted with signs with symbols or a text in Norwegian and English, as shown below:

<table>
<thead>
<tr>
<th>Noise level</th>
<th>Text</th>
</tr>
</thead>
</table>
| 80–85 dB(A) | Høyt støy nivå bruk hørselsvern  
High noise level use ear protectors |
| 85–110 dB(A) | Farlig støy bruk av hørselsvern påbudt  
Dangerous noise use of ear protectors mandatory |
| 110–115 dB(A) | Advarsel: farlig støy bruk av hørselsvern påbudt kun opphold i kortere tid  
Caution: dangerous noise use of ear protectors mandatory short stay only |
| > 115 dB(A) | Advarsel: meget farlig støy bruk av hørselsvern påbudt høyst 10 minutters opphold for inspeksjon  
Caution: excessively high noise level use of ear protectors mandatory no stay longer than 10 minutes for inspection |

§ 15-14

Use of hearing protectors

(1) The employer is obliged to ensure that the workers are wearing hearing protectors during work if the exposure action values are not complied with through technical or administrative measures.

(2) Where noise exposure matches or exceeds $L_{EX,8h} = 80$ dB(A) or $L_{pC,peak} = 130$ dB(C) undergos a health examination which includes a hearing examination.

§ 15-15

Health surveillance and health examination

(1) Where the risk assessment indicates a risk to health as a result of a worker’s exposure to noise, the employer shall make a health examination which includes a hearing examination available to the worker.

(2) The employer shall ensure that the workers who are exposed to noise that exceeds $L_{EX,8h} = 80$ dB(A) or $L_{pC,peak} = 130$ dB(C) undergoes a health examination which includes a hearing examination.

(3) Health surveillance, including health examination, shall detect possible health effects caused by noise and give grounds for preventive measures or other measures that may reduce the worker’s risk of health damage.

(4) The health examination shall be carried out by, or under the supervision of, a competent doctor. The doctor decides the frequency of as well as the contents of the examinations based on the type of exposure, level and duration and also on the health condition of the worker. If health examinations are required after the exposure is terminated, the worker shall be informed.

(5) Where health surveillance indicates a disease or other negative health effects, the workers shall be informed.

§ 15-16

Employer’s follow-up of the health surveillance

Where the health surveillance indicates a disease or other negative health effect which in the doctor’s opinion is a result from noise at the workplace, the employer shall:

- review the risk assessment, including taking into account the advice of the occupational healthcare professional or the public authority;
- take measures necessary to eliminate or reduce risks related to work that exposes the workers to noise;
- arrange systematic health examinations and provide for a review of the health status of any other worker who has been similarly exposed; and
- relocate the worker in accordance with Section 15-17 if necessary.
§ 15-17
Relocation
The employer shall as far as possible ensure that a worker is relocated to other work in the organization where the worker is not exposed to noise that is injurious to health when this is necessary with regard to the health and safety of the worker.

§ 15-18
Information and training
The employer and the safety representative shall provide information and training in accordance with the results of the risk assessments. The employer shall provide information and training related to:
   a) preventive measures in order to eliminate or reduce to a minimum the risks from noise;
   b) the exposure limit values and the exposure action values;
   c) the results of the assessment and measurement and the damages the work equipment may cause;
   d) the correct use of hearing protectors;
   e) why and how to detect and report signs of hearing damage;
   f) the circumstances in which workers are entitled to health examinations; and
   g) safe working practices to minimize exposure to noise.

§ 15-19
Transitional provisions
The implementation of the provisions of the first and second paragraphs of § 15-8 related to exposure limit values, shall not be made applicable until 22 February 2011 for seagoing ships which are unable to comply with the exposure limit values even when the latest technical improvements and organisational measures are taken into consideration.

§ 15-20
Entry into force and repeal of regulations
(1) This Chapter enters into force on 22 February 2006.
(2) As from the same date, the Regulations of 5 December 1973 No. 3 concerning Protection against Noise on board Ships is repealed.

Chapter 16
Concluding provisions
Amended by Regulation of 6 July 2005 No. 800 (previously chapter 14).

§ 16-1
Entry into force
This Regulation enters into force on 1 January 2005. As of the same date, the following is repealed:
   1. Regulation of 4 August 2000 No. 808 concerning the working environment, health and safety of workers on board ship;
   2. Regulation of 11 January 2001 No. 21 concerning protection of workers on ships against exposure to chemical agents;
   3. Regulation of 11 January 2001 No. 20 concerning protection of workers on ships against exposure to biological agents;
   4. Chapter 6 Special measures for safety and protection of the Regulations of 15 June 1987 No. 507 concerning Safety Measures, etc. on Passenger Ships, Cargo Ships and Lighters;
   5. Sections 6-17 to 6-20 of Chapter 6 Protection of the crew of the Regulations of 13 June 2000 No. 660 concerning the construction, operation, equipment and surveys of fishing vessels 15 m in overall length (LOA) and over.

Amended by Regulation of 6 July 2005 No. 800 (Previously § 14-2).

Annex 1
Provisions on the use of work equipment for temporary work at a height
1. General provisions
1.1. If, pursuant to Article 6 of Directive 89/391/EEC and Article 3 of Directive 2001/45/EEC, temporary work at a height cannot be carried out safely and under appropriate ergonomic conditions from a suitable surface, the work equipment most suitable to ensure and maintain safe working conditions must be selected. Collective protection measures shall be given priority over personal protection measures. The dimensions of the work equipment shall be appropriate to the nature of the work to be performed and to the foreseeable stresses and allow passage without danger.

The most appropriate means of access to temporary workplaces at a height must be selected according to the frequency of passage, the height to be negotiated and the duration of use. The choice made shall permit evacuation in the event of imminent danger. Passage in either direction between a means of access and platforms, decks or stairways must not give rise to any additional risks of falling.

1.2. Ladders may be used as work stations for work at a height only under circumstances in which, given paragraph 4.1., the use of other, safer work equipment is not justified because of the low level of risk and either the short duration of use or existing features on site that the employer cannot alter.

1.3. Rope access and positioning techniques may be used only under circumstances where the risk assessment indicates that the work can be performed safely and where the use of other, safer work equipment is not justified.

Taking the risk assessment into account and depending in particular on the duration of the job and the ergonomic constraints, provision shall be made for a seat with appropriate accessories.

1.4. Depending on the type of work equipment selected on the basis of the foregoing, the appropriate measures for minimising the risks to workers inherent in this type of equipment shall be determined. If necessary, provision shall be made for the installation of safeguards to prevent falls. These must be of suitable configuration and sufficient strength to prevent or arrest falls from a height and, as far as possible, to preclude injury to workers. Collective safeguards to prevent falls may be interrupted only at points of ladder or stairway access.

1.5. When the performance of a particular task requires a collective safeguard to prevent falls to be temporarily removed, effective compensatory safety measures shall be taken. The task may not be performed until such measures have been taken. Once the particular task has been finished, either definitively or temporarily, the collective safeguards to prevent falls shall be reinstalled.

1.6. Temporary work at a height may be carried out only when the weather conditions do not jeopardise the safety and health of workers.

2. Specific provisions regarding the use of ladders.

2.1. Ladders shall be so positioned as to ensure their stability during use. Portable ladders shall rest on a stable, strong, suitably-sized, immobile footing so that the rungs remain horizontal. Suspended ladders shall be attached in a secure manner and, with the exception of rope ladders, so that they cannot be displaced and so that swinging is prevented.

2.2. The feet of portable ladders shall be prevented from slipping during use by securing the stiles at or near their upper or lower ends, by any anti-slip device or by any other arrangement of equivalent effectiveness. Ladders used for access shall be long enough to protrude sufficiently beyond the access platform, unless other measures have been taken to ensure a firm handhold. Interlocking ladders and extension ladders shall be used so that the different sections are prevented from moving relative to one another. Mobile ladders shall be prevented from moving before they are stepped on.

2.3. Ladders shall be used in such a way that a secure handhold and secure support are available to workers at all times. In particular, if a load has to be carried by hand on a ladder, it must not preclude the maintenance of a safe handhold.

3. Specific provisions regarding the use of scaffolding

3.1. When a note of the calculations for the scaffolding selected is not available or the note does not cover the structural arrangements contemplated, strength and stability calculations shall be carried out unless the scaffolding is assembled in conformity with a generally recognized standard configuration.

3.2. Depending on the complexity of the scaffolding chosen, an assembly, use and dismantling plan shall be drawn up by a competent person. This may be in the form of a standard plan, supplemented by items relating to specific details of the scaffolding in question.

3.3. The bearing components of scaffolding shall be prevented from slipping, whether by attachment to the bearing surface, provision of an anti-slip device or any other means of equivalent effectiveness, and the load-bearing surface shall have a sufficient capacity. It shall be ensured that the scaffolding is stable. Wheeled scaffolding shall be prevented by appropriate devices from moving accidentally during work at a height.

3.4. The dimensions, form and layout of scaffolding decks shall be appropriate to the nature of the work to be performed and suitable for the loads to be carried and permit work and passage in safety. Scaffolding decks shall be assembled in such a way that their components cannot move in normal use. There shall be no dangerous gap between the deck components and the vertical collective safeguards to prevent falls.

3.5. When parts of a scaffolding are not ready for use, for example during assembly, dismantling or alteration, they shall be marked with general warning signs in accordance with the national provisions transposing Directive 92/58/EEC and be suitably delimited by physical means preventing access to the danger zone.

3.6. Scaffolding shall be assembled, dismantled or significantly altered only under the supervision of a competent person and by workers who shall have received appropriate and specific training in the operations envisaged, addressing specific risks in accordance with Article 7 of Directive 89/655/EEC, and more particularly in:
(a) understanding of the plan for the assembly, dismantling or alteration of the scaffolding concerned;
(b) safety during the assembly, dismantling or alteration of the scaffolding concerned;
(c) measures to prevent the risk of persons or objects falling;
d) safety measures in the event of changing weather conditions which could adversely affect the safety of the scaffolding concerned;

e) permissible loads;

f) any other risks which the abovementioned assembly, dismantling or alteration operations may entail.

The person supervising and the workers concerned shall have available the assembly and dismantling plan referred to in paragraph 3.2., including any instructions it may contain.

4. Specific provisions regarding the use of rope access and positioning techniques

4.1. The use of rope access and positioning techniques shall comply with the following conditions:

a) The system shall comprise at least two separately anchored ropes. One as a means of access, descent and support (work rope) and the other as backup (security rope).

b) Workers shall be provided with and use an appropriate harness and be connected by it to the security rope.

c) The work rope shall be equipped with safe means of ascent and descent and have a self-locking system to prevent the user falling should he or she lose control of his or her movements. The security rope shall be equipped with a mobile fall prevention system which follows the movements of the worker.

d) The tools and other accessories to be used by a worker shall be secured to the worker's harness or seat or by some other appropriate means.

e) The work shall be properly planned and supervised, so that a worker can be rescued immediately in an emergency.

f) In accordance with Article 7 of Directive 89/655/EEC, the workers concerned shall receive adequate training specific to the operations envisaged, in particular rescue procedures.

In exceptional circumstances where, in view of the assessment of risks, the use of a second rope would make the work more dangerous, the use of a single rope may be permitted, provided that appropriate measures have been taken to ensure safety in accordance with national legislation and/or practice.

Annex 2

List of classified biological agents

(1) Below is a list of the biological agents that are classified in risk groups 2, 3 and 4.

(2) The list contains special remarks for biological agents which in addition to causing infectious diseases also may cause allergic or toxic reactions, for biological agents for which there are effective vaccines, and for biological agents for which it is appropriate to keep lists of exposed workers available for more than ten years. Such agents are marked as follows:

a) A: Possibility of allergic reaction.

b) D: Lists of workers exposed to this biological agent shall be available for at least ten years after the last known exposure.

c) T: Creating a toxic reaction.

d) V: Effective vaccine exists.

(3) The notes used in the below list mean:

a) 1. The designation “spp.” refers to other species within the family which are known to be disease-provoking in humans.

b) 2. Except for strains which are not disease-provoking.

c) 3. Does not normally cause airborne infection.

d) 4. An infection with the hepatitis D virus provokes disease in humans only where the infection occurs simultaneously with or after an infection caused by the hepatitis B virus. Vaccination against the hepatitis B virus thus protects workers not infected with this virus against the hepatitis D (delta) virus.

e) 5. For type A and type B only.

f) 6. Recommended for work involving direct contact with the agents concerned.

g) 7. Two viruses are identified: a variant of the buffalo pox virus and a variant of the vaccinia virus.

h) 8. Variant of the cow pox virus.

i) 9. Variant of the vaccinia virus.

j) 10. As of today there is no evidence of any retrovirus from monkeys causing disease in humans. For work involving exposure to such retroviruses, containment level 3 is recommended as a preventive measure.

k) 11. There is no evidence that agents causing TSEs other than BSE in animals will lead to infections in humans. However, as a preventive measure we recommend the containment level used for Group 3 biological agents (with footnote 3) for laboratory work, except for laboratory work in connection with an identified scrapie agent, in which case containment level 2 will be sufficient.

<table>
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<tr>
<th>Bacteria and similar organisms</th>
<th>Classification</th>
<th>Remark</th>
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<td>Onchocerca volvulus</td>
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<td>Paragonimus westermani</td>
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<tr>
<td>Plasmodium falciparum</td>
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<tr>
<td>Plasmodium spp. (in humans and monkeys)</td>
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<tr>
<td>Sarcocystis suis hominis</td>
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<tr>
<td>Schistosoma haematobium</td>
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<td>Schistosoma intercalatum</td>
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<td>Schistosoma japonicum</td>
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<td>Schistosoma mansoni</td>
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<td>Schistosoma mekongi</td>
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<tr>
<td>Strongyloides stercoralis</td>
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<tr>
<td>Strongyloides spp.</td>
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<td>Taenia saginata</td>
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<td>Taenia solium</td>
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<td>Toxoplasma gondii</td>
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<td>Trichinella spiralis</td>
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<td>Tricuris trichiura</td>
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<td>Trypanosoma brucei brucei</td>
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<tr>
<td>Trypanosoma brucei gambiense</td>
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<td>Trypanosoma cruzi</td>
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<td>Wuchereria bancrofti</td>
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<td>Classification</td>
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<tr>
<td>Blastomyces dermatitidis (Ajellomyces dermatitidis)</td>
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<td>Candida albicans</td>
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<td>Candida tropicalis</td>
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<td>Cladiophialophora bantiana (formerly Xylohypha bantiana, Cladosporium- bantianum or tridhoides)</td>
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<td>Coccioidoides immitis</td>
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<td>Cryptococcus neoformans var. gattii (Filobasidiella bacillispora)</td>
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<td>Emmonsia parvum var. parva</td>
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<td>Emmonsia parvum var. crescents</td>
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<td>Histoplasma capsulatum duboisi</td>
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<td>Scedosporium apiospermum (Pseudallescheria boydii)</td>
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<td>Trichophyton rubrum</td>
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<td>Trichophyton spp.</td>
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