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**Chapter A I A
1 July 2002**

**Technical regulation on
occupational health in ships**

C H A P T E R I

Performance of work

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C H A P T E R I

Performance of work

Part A General

Regulation 1 Application

- 1 The provisions of this chapter shall apply to all work performed on board ships which is not subject to the Danish Act on Occupational Health.
- 2 The obligations rest with employers (in the following referred to as ship owners), masters, supervisors and other persons performing work on board.
- 3 This part contains provisions drafted on the basis of Council Directive 89/391/EEC, Official Journal 1989 L 183, p. 1, and Council Directive 92/85/EEC, Official Journal 1992 L 348, p. 1.

Regulation 2 Planning and organisation of work

- 1 The work shall, at all stages, be planned and organised so as to ensure safe and healthy working conditions. It shall be ensured that no designs, plans, detailed solutions and working methods that may be dangerous to or otherwise impair health and safety in connection with the performance of work are prescribed or assumed used. Furthermore, it shall be ensured that the overall exposure in the working environment does not, in the short or the longer term, impair the health or safety of the employees.
- 2 The planning and organisation of work shall, furthermore, be carried out taking due account of the preventive principles stated in annex I. Insofar as the assessment made in this connection is of particular importance to the health and safety at work, it shall be made in writing.
- 3 The Danish Maritime Authority shall lay down guidelines for the detailed content of the assessment to be made in accordance with paragraph (2) above, taking account of the type and tonnage of the ships.
- 4 On the basis of the assessment made pursuant to paragraph (2) above and in accordance with the preventive principles stated in annex 1, the necessary measures shall be implemented prior to commencement of the work.
- 5 The obligations set out in paragraphs (1) and (2) above shall likewise apply to the planning of new or changing of existing workplaces, working processes and methods, the introduction of new technology, the acquisition of technical aids, personal protective equipment and substances and materials.
- 6 The master shall ensure that all employees engaged in work on board will cooperate to ensure safe and healthy working conditions for all irrespective of employment status.
- 7 The safety organisation shall have the possibility of participating in the planning of the work, cf. paragraphs (1)-(5), as well as in the inspection of occupational health conditions, cf. regulation 6.
- 8 On board ships where no safety organisation shall be established, cf. the provisions of chapter XI, part A on safety work on board merchant ships and large fishing vessels and part B on safety

work on board small fishing vessels, the employees shall have the possibility of participating in the planning of the work and the inspection of occupational health conditions mentioned in paragraph (7) above.

Regulation 3 Performance of work – general requirements

- 1 All aspects related to the work shall be performed so as to ensure health and safety, both in the light of a separate assessment and an overall assessment of the occupational health conditions that may affect the physical or mental health of the employees in the short or the longer term.
- 2 In the case of work having a physically or mentally harmful or stressful effect in the short or the longer term, special occupational health and safety measures shall be taken. Such measures may be special welfare measures and any other occupational health and safety measures necessary for the prevention of disease, attrition, accidents, etc.
- 3 Where work may involve particular risks to health and safety, breaks and limited working hours for such work may be ordered as a preventive measure where such risk cannot otherwise be prevented. The same measures shall be taken where special working clothes and personal protective equipment are used.
- 4 In connection with the performance of work, account shall be taken of the employee's age, insight, fitness for work and other qualifications.
- 5 Particularly sensitive risk groups, including pregnant employees and employees who are breastfeeding, shall be protected against the dangers that specifically affect them.
- 6 When the master is informed of or otherwise becomes aware that an employee is pregnant or breastfeeding, the master shall see to it that the assessment of health and safety at work, cf. regulation 2 (2), includes an evaluation of whether the employee is exposed to effects that may involve danger to the pregnancy or the breastfeeding, cf. in particular the occupational health effects mentioned in annex 2.
- 7 If it is assessed hereafter that there is a risk that a pregnant employee or an employee who is breastfeeding is exposed to the effects referred to in paragraph (6) above, it shall be determined on the basis of an assessment of the nature, degree and duration of the individual exposure whether such a risk will have an adverse effect on the pregnancy or breastfeeding, and, where necessary, preventive measures shall be taken in pursuance of paragraphs (8) and (9) above.
- 8 If possible, such measures shall consist of technical measures or arrangement of the workplace. Where it is not reasonably practicable to achieve adequate protection of the employee in this way, the risk shall be prevented through measures in connection with the planning and organisation of the work, including, if necessary, a change of working hours and limitation of night work.
- 9 If it is not possible to comply with paragraph (8) above, the measures may consist of transfer to other jobs that do not involve any danger to the health and safety of the pregnant employee or the employee who is breastfeeding.
- 10 In connection with the performance of work, efforts shall be made to ensure:

- .1 that monotonous work involving a risk of physical or mental impairment of health in the short or the longer term is avoided or limited;
 - .2 that the working pace does not involve any risk of physical or mental impairment of health in the short or the longer term; and
 - .3 that work in isolation, which may involve a risk of mental impairment of health, is avoided or alleviated.
- 11 In connection with the performance of work, it shall be ensured:
- .1 that the design of workplaces, equipment, technical aids and the choice of working methods are adapted as far as possible to the persons using them; and
 - .2 that suitable and efficient aids such as lifting devices and means of transport, etc. are available to the extent necessary to carry out the work safely and without risks to health.

Regulation 4 Performance of work – Special requirements

- 1 On board ships where work is performed by persons whose services are contracted to the ship or who are made available to the ship in other ways by an outside undertaking, the ship owner and, on his behalf, the master has an obligation to ensure that such work is planned, organised and performed so as to be without any risk to health and safety.
- 2 Before such work is commenced, the ship owner and, on his behalf, the master shall inform the outside undertaking of the following:
 - .1 the required professional level, including whether special qualifications are required;
 - .2 any requirements for health certificates; and
 - .3 the special nature of the work, including any dangerous elements.
- 3 If an employee is the only person engaged in a working process and this may involve specific danger to the person concerned, the work shall be organised so as to prevent such danger. If the danger cannot be prevented, the employee shall not be permitted to work alone.
- 4 Steps shall be taken to ensure that only employees who have received adequate instructions may have access to areas where there is a specific danger.
- 5 If, in connection with certain jobs, the physical or mental state of an employee may present an increased risk to the employee himself or his surroundings, the employee shall not be engaged in such work.
- 6 Where the measures referred to in regulation 3 (7) are not found to be adequate to prevent risks to the health and safety of the pregnant employee or the employee who is breastfeeding, such employee shall not be engaged in the work concerned. The master shall, in such cases, release her from her duty on board and arrange for her resignation.
- 7 In connection with the performance of work, it shall be ensured:
 - .1 that effective measures have been taken to prevent the risk of accidents, including special risks arising from the movement of the ship;

- .2 that the danger of explosion, fire, poisoning, suffocation, etc. has been effectively prevented;
 - .3 that effective measures are taken to prevent any escape, leakage and emissions of dust, smoke, vapours, smells, gas, etc. which may endanger health and safety;
 - .4 that effective measures are taken to protect the employees where the working process or the conditions under which work is performed represent a risk of infection;
 - .5 that the climatic and lighting conditions are fully satisfactory from a health and safety perspective for the work to be performed. In this connection, measures shall be taken to protect the employees from intense heat or cold.
- 8 Any unnecessary exposure to noise shall be avoided. Therefore, the noise level during work shall be reduced to the lowest level reasonably practicable taking account of technical progress. Defined limit values shall be complied with.
- 9 Any unnecessary exposure to radiation shall be avoided. Therefore, the effect of radiation during work shall be reduced to the lowest level reasonably practicable taking account of technical progress. Defined radiation standards shall be complied with.
- 10 Any unnecessary effect of substances and materials shall be avoided. Therefore, the effect of substances and materials during work shall be reduced to the lowest level reasonably practicable taking account of technical progress. Determined limit values shall be complied with. The limit values for substances and materials determined by the Danish Working Environment Authority at any time shall be complied with.
- 11 Any unnecessary physical strains and inappropriate postures or movements shall be avoided. Therefore, the strains during work shall be reduced to the lowest level reasonably practicable taking account of technical progress. Defined limits shall be complied with.

Regulation 5 Training and instruction

- 1 It shall be ensured that each employee – irrespective of the nature and duration of the employment – receives adequate and appropriate training and instruction in performing the work safely. Information shall be given about any risk of accidents and diseases specific to a job, including information about any occupational medical examinations to which the employee has access.
- 2 Training and instruction shall particularly be given:
- .1 On recruitment;
 - .2 In the event of a change of tasks;
 - .3 In the event of the introduction of new work equipment or a change in existing equipment;
 - .4 In the event of introduction of any new technology.
- 3 The training and instruction mentioned in paragraph (1) above shall be adapted to developments, including the occurrence of new risk elements, and shall be repeated regularly if necessary.

- 4 The ship owner shall pay any expenses connected with the training and instruction referred to in paragraphs (1)-(3), which shall take place during working hours.
- 5 It shall be ensured that employees of an outside undertaking who are engaged in work on board receive appropriate instructions regarding health and safety conditions that are of importance to the work.

Regulation 6 Inspection of occupational health

- 1 In order to ensure safe and healthy working conditions at all times, the ship owner and, on his behalf, the master shall ensure that:
 - .1 the assessment, cf. regulation 2 (2) and regulation 3 (7) is available on board the ship and is revised whenever this is of particular importance to health and safety at work;
 - .2 expert assistance is obtained where necessary to ascertain whether the working conditions are without any risk to health and safety; and
 - .3 a list is kept and reports are prepared on occupational accidents, cf. the provisions of chapter X, part A on the reporting of occupational accidents, etc. to the Danish Maritime Authority.
- 2 Effective inspection shall be carried out to ensure that the harmful effects mentioned in regulation 4 (8)-(11) are prevented. Where gases, vapours and dust arising from substances and materials or noise and radiation may give rise to a risk to health, the ship owner and, on his behalf, the master shall see to it that inspection is carried out to ensure that, in this connection, such measurements are made as are necessary to complete the inspection. The results of such measurements shall be available on board.

A N N E X I

General preventive principles

- 1 Avoiding risks.
- 2 Evaluating risks that cannot be avoided.
- 3 Combating risks at the source.
- 4 Adapting the work to the individual, especially as regards the design of workplaces as well as the choice of appliances and production methods with a view, in particular, to alleviate monotonous work and work at a predetermined rate and to reduce their effect on health.
- 5 Adapting to technical progress.
- 6 Replacing the dangerous by the non-dangerous or the less dangerous.
- 7 Developing a coherent overall prevention policy covering technology, organisation of work, working conditions, social relations and the influence of factors related to occupational health.
- 8 Adopting collective protective measures rather than individual protective measures.
- 9 Giving appropriate instructions to the employees.

A N N E X III

Occupational health effects

I Occupational health effects that may present a risk to pregnant employees and employees who are breastfeeding, cf. regulation 3 (6) and (7).

Physical effects

- 1 The following physical effects where these are regarded as effects that may cause foetal lesions and/or disrupt placental attachment, in particular:
- .1 Shocks, vibrations or rolls of the ship.
 - .2 Manual handling of heavy loads entailing risks of injury, particularly to the back.
 - .3 Noise.
 - .4 Ionizing radiation.
 - .5 Non-ionizing radiation.
 - .6 Extreme cold and heat.
 - .7 Movements and postures (including work performed in a standing position or requiring constant walking), mental and physical fatigue and other types of physical and mental strain connected with the employees' tasks.

Biological effects

- 1 Biological agents from risk groups 2, 3 and 4, cf. the technical regulation issued by the Danish Maritime Authority on the protection of employees against biological agents when these agents or the therapeutic measures necessary in this connection endanger the health of the pregnant woman and the unborn child.
- 2 Such agents may, for example, be those used for laboratory work on board the environmental research ships that carry out analysis work in connection with measurements in the marine and general environment or work relating to sewage on board, etc.

Chemical effects

- 1 The following chemical agents insofar as it is known that they endanger the health of the pregnant woman and the unborn child.
- .1 Substances and materials that, in accordance with the rules on classification and marking issued by the Danish Ministry of the Environment, shall be classified and marked as follows:
 - .1 R40, potential for permanent damage to health;
 - .2 R45, carcinogenic;
 - .3 R46, likely to cause hereditary genetic damage;
 - .4 R61, likely to cause harm to the foetus during pregnancy;
 - .5 R63, potential for harm to the foetus during pregnancy; and
 - .6 R64, likely to be harmful to babies in the period when they are breastfed.

- .2 Substances and materials covered by the provisions on measures to prevent the risk of cancer during work with substances and materials on board ships.
- .3 Substances and materials covered by the Order in force on materials containing volatile substances, including organic solvents issued by the Danish Working Environment Authority.
- .4 Pesticides.
- .5 Nitrous oxides.
- .6 Mercury and mercury compounds.
- .7 Carbon monoxide.
- .8 Chemical agents of known and dangerous percutaneous absorption.

II Occupational health effects that may present a special risk to pregnant employees.

- .1 Work in hyperbaric atmosphere, e.g. in pressurised enclosures and during underwater diving.
- .2 Lead and lead compounds if there is a risk that these agents are capable of being absorbed by the human organism.

III Occupational health effects that may present a special risk to employees who are breastfeeding.

- .1 Lead and lead compounds.