

Working Conditions Decree

Decree of 15 January 1997, including provisions in the interest of health, safety and welfare in connection with work (Working Conditions Decree)

We Beatrix, by the Grace of God, Queen of the Netherlands, Princess of Oranje-Nassau, etc. etc. etc.

On the recommendations of the State Secretary of Social Affairs and Employment and Our Ministers of Education, Culture and Science, of the Interior and Kingdom Relations, of Transport, Public Works and Water Management, of Justice and the State Secretary of Defence of 12 July 1996, the Central Legislation and Legal and Administrative Affairs Department, no. WBJA/W2/96/0407, submitted also on behalf of the Prime Minister, the Minister of General Affairs and in accordance with the Minister of Economic Affairs;

Considering Articles 1, 2, 4, 5, 6, 10, 20, 23a, 24, 24a, 25, 26, 27, 28, 30, 31a, 35, 36, and 41 of the Working Conditions Act and Articles 5 and 8 of the Trading Hours Act;

Considering the advice of the Social and Economic Council of 9 February 1995, no. 95/31 I and II;

Having consulted the Council of State (advice of 24 September 1996, no. W12.960298);

In view of the further report of the State Secretary of Social Affairs and Employment and Our Ministers of Education, Culture and Science, of the Interior and Kingdom Relations, of Transport, Public Works and Water Management, of Justice and the State Secretary of Defence of 18 December 1996, the Central Legislation and Legal and Administrative Affairs Department no. WBJA/W2/96/1537, issued also on behalf of the Prime Minister, the Minister of General Affairs and in accordance with the Minister of Economic Affairs;

Have approved and understood:

Chapter 1. Definitions and Scope

Section 1. Definitions

Article 1.1. Definitions general

1. In this Decree and the provisions based on it, the Act means: the Working Conditions Act.
2. In this Decree and the provisions based on it the following concepts have the following meaning:
 - a. construction site: any temporary or mobile work site where civil engineering or construction activities are carried out, a non-exhaustive list of which is included in Annex I of the Directive meant in Article 2.23, under a;
 - b. structure: a civil engineering work or structure as meant under a;
 - c. client:
 - 1°. for the application of Chapter 2, Section 5, and Article 9.6: the party on whose account a structure is created;
 - 2°. for the application of Article 9.5: the party on whose account a self-employed person or employer, as referred to in Article 16, seventh paragraph, under b, of the Act, performs work;
 - d. client-consumer: the natural person not acting within the course of his profession or trade on whose account a structure is being created;
 - e. designing party: the party who undertook to the client, as referred to in Section c, under 1°, or client-consumer to carry out the designing function in the construction stage;
 - f. implementing party: the party who undertook to the client, as referred to in Section c, under 1° or client-consumer to carry out the implementing function in the construction stage;
3. In this Decree and the provisions based on it the following concepts have the following meaning:
 - a. workplace in the extracting industry: any workplace directly or indirectly associated with the opencast mining industry, the underground mining industry or mineral-extracting industry through

- drilling;
 - b. minerals: a natural concentration or deposit of ores, minerals or substances of organic origin in or on the soil in solid, fluid or gaseous condition including shells, aggregate, sand and clay present on the ground or immediately under its surface;
 - c. opencast mining industry: any industry:
 - 1°. extracting minerals in the open air;
 - 2°. carrying out prospecting activities with a view to extraction of minerals in the open air, or
 - 3°. preparing minerals for their sale with the exception of activities in connection with processing these minerals;
 - d. underground mining industry: any industry:
 - 1°. extracting underground minerals other than by drilling;
 - 2°. carrying out prospecting activities with a view to this extraction;
 - 3°. preparing minerals for their sale with the exception of activities in connection with processing these minerals; or
 - 4°. storing substances as meant in Article 1, under i, of the Mining Act.
 - e. mineral-extracting industry through drilling: any industry:
 - 1°. extracting minerals by drilling;
 - 2°. carrying out prospecting activities with a view to this extraction;
 - 3°. preparing minerals for their sale with the exception of activities in connection with processing these minerals;
 - 4°. storing substances as meant in Article 1, under i, of the Mining Act, or
 - 5°. detecting or extracting terrestrial heat as meant in Article 1, under g and h, of the Mining Act.
 - f. mining installation: an installation as meant in Article 1, under o, of the Mining Act.
4. In this Decree and the provisions based on it the following concepts have the following meaning:
- a. physical load: the working position to be adopted by the employee in connection with his work, movements to be carried out or powers to be applied for instance consisting of lifting, putting down, pushing, pulling, carrying or moving or supporting one or more loads in another manner;
 - b. personal protection device: any equipment intended to be worn or carried by the employee in order to protect him against one or more hazards which could constitute a danger to his health or safety at work as well as all additions or accessories which could contribute to this with the exception of:
 - 1°. ordinary and uniform working clothes not specifically intended to protect the health and safety of the employee;
 - 2°. sporting equipment;
 - 3°. material for self-defence or a deterrent, and
 - 4°. portable devices to detect and identify hazards and load factors;
 - c. health or safety signs: a sign applied to a certain object, a certain activity or a certain situation by means of a sign, a colour, a light signal, an acoustic signal, a verbal communication or a hand or arm signal, an indication or given instruction concerning health or safety at work.
5. In this Decree and the provisions based on it the following concepts have the following meaning:
- a. young employee: an employee below the age of 18;
 - b. pregnant employee: an employee who is pregnant and who has notified her employer of this;
 - c. breast-feeding employee: an employee breast feeding her child and who has notified her employer of this.
6. In this Decree and the provisions based on it the term 'certifying institution' means: an institution designated by our Minister by virtue of Article 20, second paragraph, of the Act which decides on the issue of a certificate as meant in Article 20, first paragraph of this Act.

Article 1.3. Definitions education

1. In this Decree and the provisions based on it the term 'educational institution' means: an educational institution paid for or designated.
2. In this Decree and the provisions based on it, the term 'educational institution paid for' means:
 - a. a public or private school fully or partly paid for from public funds as meant in the Primary Education Act;
 - b. a public or private school fully or partly paid for from public funds as meant in the Expertise Centres Act;
 - c. a public or private school, course or establishment fully or partly paid for from public funds as meant by and pursuant to the Secondary Education Act;
 - d. a public or special institution fully or partly paid for from public funds as mentioned in the Annex belonging to the Higher Education and Scientific Research Act, under a and b;
 - e. a public or special institution fully or partly paid for from public funds as mentioned in the Annex belonging to the Higher Education and Scientific Research Act, under c to g;
 - f. Heerlen Open University, mentioned in the Annex belonging to the Higher Education and Research Act, under h;
 - g. a school as meant in the Educational Experiments Act;
 - h. a public or special institution for education and vocational secondary education wholly or partly paid for out of public funds as meant in the Adult and Vocational Education Act.
3. In this Decree and the provisions based on it the term indicated educational institution means:
 - a. a school as meant in Article 56 of the Secondary Education Act;
 - b. an institution as meant in Article 6.9 of the Higher Education and Research Act;
 - c. an institution as meant in Article 1.4.1 of the Adult and Vocational Education Act.
4. In this Decree and the provisions based on it the term participation council means:
 - a. a participation council as meant in the Participation (Education) Act 1992 or in Article 10.17 of the Higher Education and Research Act;
 - b. the student council of the Open University meant in Article 11.13 of the Higher Education and Research Act.

Article 1.4. Definitions custodial institutions

1. In this Decree and the provisions based on it the following concepts have the following meaning:
 - a. judicial personnel:
 - 1°. persons who by virtue of a public designation in civilian public service are obliged to the Kingdom to carry out work in custodial institutions;
 - 2°. persons who under the authority of the Kingdom are carrying out work in a custodial institution with the exception of prisoners, patients and young persons;
 - b. prisoners, patients and young persons: the persons who by virtue of a decision or ruling of the court or by the public authorities have rightfully been deprived of their freedom and are detained in a custodial institution with the exception of the soldiers imprisoned in the Stroe Military Penitentiary Centre;
 - c. custodial institution: a prison or detention centre as meant in the Prisons Act, a custodial institution for nursing persons placed under a hospital order as meant in the Hospital Orders Framework Act or an institution as meant in the Youth Custodial Institutions Act.
2. The term custodial institution also means: the transport of prisoners, patients and young persons to and from the custodial institution as well as all other work carried out by judicial personnel with prisoners, patients and young persons outside the custodial institution.

Article 1.5. Definitions Defence

In this Decree and the provisions based on it the following concepts have the following meaning:

- a. military personnel:
 - 1°. the military officials in actual service within the sense of Article 1, paragraph one and two, of the Military Personnel Act 1931;
 - 2°. the conscripts in actual service within the sense of Articles 18, 19 and 21 of the National Service Framework Act;
- b. civilian personnel at the Ministry of Defence:
 - 1°. persons who by virtue of a public designation in civilian public service are obliged to the Kingdom represented by the Minister of Defence to carry out work except if the person involved is being made available to a third party to carry out work, which this third party usually has carried out;
 - 2°. persons who are carrying out work under the authority of the Kingdom represented by the Minister of Defence;
- c. defence personnel: military personnel and civilian personnel at the Ministry of Defence;
- d. exercise: any putting into practice of skills theoretically taught by defence personnel in war simulations in order to acquire, increase or maintain proficiency in carrying out war duties;
- e. military vessel: a Dutch warship, marine auxiliary vessel or other ship used for carrying out military duties;
- f. military aircraft: an aircraft managed by the Ministry of Defence;
- g. manned weapon system: any weapon system propelled or not, which is manned or operated during use with the exception of a light personal weapon;
- h. a standby-unit: a unit designated to this end and deployed or ready or which has to be kept ready to be deployed in connection with the armed forces.

Section 1A. Certification

§ 1. Designation of certifying institutions on request

Article 1.5a. Designation criteria

1. An institution complying with the following requirements may be designated as a certifying institution if:
 - a. it is a legal person;
 - b. it is independent;
 - c. it has sufficient expertise and equipment at its disposal to be properly able to fulfil the duties for which it is designated;
 - d. it has a registration system at its disposal which records the data in connection with and relating to the performance of the duties for which it wishes to be designated in a systematic way;
 - e. it is insured against statutory liability for the risks arising from the performance of the tasks for which it wishes to be designated;
 - f. it has contracted an agreement with the management foundation, in cases arising, that manages the certification schemes pursuant to this Decree for the field of work in which the institution wishes to work as a certifying institution; and
 - g. it functions properly.
2. With respect to the first paragraph detailed provisions will be laid down in a Ministerial Order.

Article 1.5b. Application for designation

1. The institution referred to in Article 1.5a must submit the application for designation to Our Minister.
2. The institution shall accompany the application with an assessment by the Accreditation Council Foundation in Utrecht, showing that it meets the criteria referred to in Article 1.5a.
3. Further rules can be imposed for the submission of the application, the assessment and the

settlement of the application by Ministerial Order, divided by field of work if necessary.

4. The costs of the assessment shall be borne by the institution applying for designation.
5. By way of departure from paragraphs 2 and 3, the institution need not accompany the application with an assessment by the Accreditation Council Foundation referred to in paragraph 2 for fields of work to be designated by Ministerial Order.
6. By way of departure from paragraph 4, the costs of the assessment are not borne by the institution applying for designation for fields of work to be designated by Ministerial Order.

Article 1.5c. Rejection, suspension, alteration or withdrawal of a designation

1. Designation as a certifying institution will be refused if:
 - a. The applicant has not complied with the provisions by or pursuant to Articles 1.5a or 1.5b; or
 - b. In the twelve months prior to the date on which the application was submitted, an application by the applicant for designation as a certifying institution was rejected, or its designation as a certifying institution was withdrawn and that rejection or withdrawal took place on the grounds of facts or circumstances attributable to the applicant.
2. In the case referred to in paragraph 1b, the application will not be processed until twelve months have passed from the day following the date of the refusal or the withdrawal.
3. A designation may be suspended, or may be altered to the detriment of the certifying institution or withdrawn:
 - a. on the grounds of facts or circumstances of which Our Minister could not reasonably have been aware when the designation was granted and on the grounds of which the designation would not have been granted, or would only have been granted subject to restrictions or conditions, as referred to in Article 20(4) of the Act;
 - b. on the grounds of incorrect information provided by the certifying institution concerning facts or circumstances, provided that the institution was or should have been aware that it was incorrect;
 - c. if the certifying institution no longer complies with the provisions by or pursuant to Article 1.5a;
 - d. if the certifying institution has not performed any work for which it is designated for a consecutive period of two years; or
 - e. if the certifying institution no longer complies correctly with its statutory obligations or no longer correctly performs the tasks for which it is designated.

Article 1.5d. Regular control of a certifying institution

1. During the term of the designation as a certifying institution, Our Minister shall determine on a regular basis whether the institution:
 - a. still complies with the provisions by or pursuant to Article 1.5a; and
 - b. complies correctly with its statutory obligations and correctly performs the tasks for which it is designated.
2. For the regular determination, Our Minister shall provide for the Accreditation Council Foundation to conduct an assessment in that regard.

3. Further rules may be imposed with regard to the regular determination and the assessment by Ministerial Order, divided by field of work if necessary.
4. The costs of the assessment shall be borne by the institution.
5. By way of departure from paragraphs 2 and 3, the institution need not itself request an assessment by the Accreditation Council Foundation referred to in paragraph 2 for fields of work to be designated by Ministerial Order.
6. By way of departure from paragraph 4, the costs of the assessment are not borne by the institution for fields of work to be designated by Ministerial Order.

Article 1.5e. Providing information

1. The certifying institution must draw up a report each year before 1 March on the activities it has carried out within the scope of its duties and the lawfulness and effectiveness of its activities and operations in the previous calendar year. The report should be sent to Our Minister. Detailed provisions can be laid down by Ministerial Order concerning the subjects which are dealt with in the annual report.
2. The certifying institution must supply the Accreditation Council Foundation in Utrecht with all information that it requires for the implementation of the provisions of or pursuant to this Article 1.5d on request.
3. Further rules shall be imposed by Ministerial Order concerning the provision of information by a certifying institution to Our Minister or the supervisory authority free of charge, or by Our Minister or the supervisory authority to a certifying institution or the Accreditation Council Foundation referred to in paragraph 2, obtained through the performance of or the supervision of compliance with the provisions by or pursuant to the Act, which information is necessary for the performance of their statutory duties.

§ 2. General provisions concerning certification

Article 1.5f. Application for the issue of a certificate

1. A certificate as meant in Article 20, first paragraph, of the Act, will be issued by Our Minister or - if Our Minister has designated a certifying institution - the certifying institution, if the requirements with respect to the certificate laid down by or pursuant to the Act have been complied with.
2. By Ministerial Order, divided by field of work if necessary, further rules may be imposed concerning an application as referred to in paragraph 1 and its processing.
3. The costs of issuing a certificate shall be borne by the applicant for the issue of the certificate.

Article 1.5g. Rejection, suspension, alteration or withdrawal of a certificate

1. The issue of a certificate will be refused if:
 - a. the applicant has not complied with the requirements imposed for the certificate by or pursuant to this Decree; or
 - b. in the twelve months prior to the date on which the application for a certificate was submitted, an application for the issue of the same certificate was rejected or withdrawn and that rejection or withdrawal took place on the grounds of facts or circumstances attributable to the applicant.
2. In the case referred to in paragraph 1b, the application will not be processed until twelve months

have passed from the day following the date of the refusal or the withdrawal.

3. A certificate may be suspended, or may be altered to the detriment of the certificate-holder or withdrawn:
 - a. on the grounds of facts or circumstances of which Our Minister or, if Our Minister has designated a certifying institution, that institution could not reasonably have been aware when the certificate was issued and on the grounds of which the certificate would not have been issued, or would only have been issued subject to restrictions or conditions, as referred to in Article 20(4) of the Act;
 - b. on the grounds of incorrect information provided by the certificate-holder concerning facts or circumstances, provided that the certificate-holder was or should have been aware that was incorrect;
 - c. if the certificate-holder no longer complies with the requirements imposed for the certificate by or pursuant to this Decree or no longer correctly complies with its statutory obligations; or
 - d. if the certificate-holder causes or could cause serious risks for persons through his or her work, to the extent that this is regulated by the certificate, or by the way in which he/she performs the work.

Article 1.5h. Foreign certificates and qualifications demonstrating competence

1. Our Minister or - if Our Minister has designated a certifying institution - the certifying institution will issue on request a certificate of competence to such person that is a citizen of a state concerned, as referred to in Article 1 of the Recognition of EC Vocational Qualifications Act, if it has been demonstrated on grounds of Article 6 of the Recognition of EC Vocational Qualifications Act that this person holds qualifications equivalent to those of the holder of a certificate of competence issued pursuant to this Decree.
2. The holder of a certificate of competence as referred to in the first paragraph has mastered the Dutch language at such a level that regulations and instructions regarding the labels required under or pursuant to this Decree for substances, tools and personal protection equipment, as well as other rules stipulated under or pursuant to this Decree with respect to the use and handling of substances, tools and personal protection equipment, can be understood and implemented.
3. Articles 1.5f and 1.5g apply *mutatis mutandis*.

Article 1.5i. Regular control of the certificate-holder

1. During the term of the certificate, Our Minister or - if Our Minister has designated a certifying institution - the certifying institution shall regularly determine whether the certificate-holder still complies with the statutory requirements concerning the certificate
2. Further rules may be imposed with regard to the regular determination, divided by field of work if necessary.
3. The costs of the regular determination shall be borne by the certificate-holder.
4. The certificate-holder shall provide Our Minister or - if Our Minister has designated a certifying institution - the certifying institution with all information necessary for the performance of the provisions of or pursuant to this Article, free of charge, on request.

Section 2. Co-operation, consultation and protection from dismissal and disadvantage

Article 1.6. Definitions co-operation and consultation

1. Contrary to the Act, this Decree and the provisions based on it, for its purposes with regard to work carried out in educational institutions paid for as meant in Article 1.3, paragraph two, under d and f, insofar as the Works Councils Act is not applicable, the term «the Works Council» and the «Staff representation body» should be read as «the University Council», «the Service Council» or the «Participation Council», and with regard to work carried out by defence personnel, insofar as the Works Councils Act is not applicable, the term «the Works Council» and the «Staff representation body» should be read as «the Participation Committee» or «the Consultative Body».
2. In this Decree and the provisions based on it the following concepts have the following meaning:
 - a. University Council: a university council as meant in Article 9.31 of the Higher Education and Scientific Research Act;
 - b. Service Council: a service council as meant in Article 9.50 of the Higher Education and Scientific Research Act;
 - c. Participation Committee: a participation committee as meant in Article 3 of the Defence Participation Decree;
 - d. Consultative body: a consultative body established pursuant to Article 23 of the Military Service Framework Act.

Article 1.7. Nature and content of the consultations

1. With regard to the nature and content of the consultations and the manner in which the consultations are conducted with a university council, a service council or a participation council or participation committee or a consultative body and with regard to the powers of a university council, a service council or a participation council or a participation committee or a consultative body, the following is applicable:
 - a. the Higher Education and Scientific Research Act, or
 - b. the Defence Participation Decree or the provisions to be laid down by Our Minister of Defence pursuant to Article 23 of the Military Service Framework Act.
2. Insofar as the Act contains provisions concerning the rights of the works council or staff representation body or its members with respect to which the provisions meant in the first paragraph do not contain any provisions, the Act will apply.

Article 1.8. Protection against dismissal

1. With regard to a person to which the General Civil Servants Regulations or the Defence Civil Servants Regulations apply and who is working as an expert employee as meant in Article 13, paragraph one and two, or as an expert as meant in Article 14, paragraph one, of the Act, Article 95, paragraph seven, of the General Civil Servants Regulations or Article 115, paragraph six, of the Defence Civil Servants Regulations will apply accordingly.
2. With respect to persons as meant in the first paragraph who are governed by corresponding provisions such as the General Civil Servants Regulations, insofar as this is necessary the first paragraph applies accordingly.

Article 1.9. Protection against disadvantage

Contrary to Article 13, paragraph five, second and third sentence of the Act, with regard to a person to whom the Higher Education and Scientific Research Act is applicable and who is working as an expert employee as meant in Article 13, first and second paragraph, or as an expert as meant in Article 14, first paragraph, of the Act, Article 9.32, paragraph eight, of the Higher Education and Scientific Research Act will apply accordingly. With regard to a person to whom the General Military Civil Servants Regulations or the Defence Civil Servants Regulations are applicable and who is working as an expert employee or person as meant in the previous sentence, Article 20 of the Defence Participation Decree will apply accordingly.

Section 3. Education

Article 1.10. Applicability

Unless otherwise provided for herein below, the Act and this Decree apply to employees in educational institutions and they apply accordingly to pupils and students in educational institutions carrying out acts which are comparable to work in the practising profession.

Article 1.11. Co-operation and consultation; educational institutions with a participation council

1. With respect to educational institutions paid for as meant in Article 1.3, second paragraph, under a to c, and under g and h, insofar as this is applicable, the rights as meant in Article 12, paragraph four of the Act accrue to the members of the participation council.
2. With respect to the educational institutions paid for as mentioned in the first paragraph, for the purposes of Article 12 paragraph five and six of the Act, the participation council replaces the works council or staff representation body.
3. With respect to educational institutions paid for as mentioned in the first paragraph, the rights and powers vested under the Act and this Decree will, with due observance of Article 1.13, be carried out by the members of the participation council or - if this involves matters of general interest for the special legal position of the personnel - by the consultative body of the decentralised organised consultation body or of the institution.

Article 1.12. Co-operation and consultation; universities and colleges of professional education

With respect to the educational institutions paid for as mentioned in Article 1.3, second paragraph under to f, the rights and powers vested under the Act and this Decree will be executed with due observance of Article 1.13, by the University Council, the Service Council, the Participation Council or the Student Council as meant in the Higher Education and Scientific Research Act or - if matters of general importance for the special legal position of the personnel are involved - by the consultative body of the decentralised organised consultation body or of the institution.

Article 1.13. Exceptions to working conditions policy and hearing both sides

1. Article 3, paragraph one, under c, of the Act, with the exception of the ergonomic work aspects, and d, insofar as they do not relate to health and safety, does not apply to pupils or students respectively in educational institutions.
2. Section 4.1.2 of the General Administrative Law Act does not apply to pupils or students in educational institutions.

Article 1.14. Exceptions to employee obligations

Where in the Act certain obligations are imposed on employees, these obligations do not apply to pupils or students in educational institutions.

Article 1.15. Exception to occupational health medical examination

Article 18 of the Act does not apply to pupils or students in educational institutions.

Section 4. Civilian Public Service

Article 1.16. Applicability

This Section applies to work carried out in civilian public service with the exception of work:

- a. carried out in educational institutions;

- b. carried out in custodial institutions;
- c. carried out by civil employees employed by the Ministry of Defence, including subordinate departments and institutions.

Article 1.17. Police and Fire Brigade

Articles 10, 27, 28, 28a and 29 of the Act apply to work carried out in civilian public service aimed at actually carrying out the duties meant in Article 3 of the Police Act 2012, Article 141 or 142 of the Code of Criminal Procedure or Article 3, paragraph one, of the Safety Regions Act insofar as this duty relates to acting repressively with respect to fires, accidents and disasters, insofar as proper performance of their duties will not be impeded by the application of these Articles.

Article 1.18. State security

1. Articles 27, 28, 28a and 29 of the Act apply with respect to work carried out in civilian public service aimed at actually performing the duties mentioned in Article 6, paragraph two, under a, of the Intelligence and Security Services Act 2002, insofar as proper performance of these duties will not be impeded by the application of these Articles.
2. The Act will be applicable to work carried out in civil service with due observance of the national and international data protection rules applicable to the civil service, the secrecy of which is required in the interest of the State or its allies.
3. With respect to work carried out in civilian public service by or for the benefit of the intelligence and security services, the Act will also be applied with due observance of the care entrusted to the heads of these departments for the secrecy of the information they obtain and of the sources from which it originates and for properly safeguarding the security of the persons whose services are being used in collecting the information.

Section 5. Transport

Article 1.19. Applicability

1. The Act does not apply to work carried out in or on a seagoing vessel which under Dutch legislation is not entitled to carry the Dutch flag and which is situated in the exclusive economic area in the territorial waters, on one of the shipping waterways meant in Article 10, paragraph one, of the Shipping Traffic Act, on the Western Scheldt, its mouths or on the section of the Ghent-Terneuzen Canal situated in the Netherlands, or in Scheveningen Harbour.
2. The first paragraph does not apply with respect to extending, converting, repairing, dismantling, maintenance, cleaning and other associated activities connected with the vessels meant in the first paragraph and situated in the Netherlands as well as with respect to loading and unloading unless this work is carried out by an employee forming Section of the crew of a seagoing vessel as meant in paragraph 1.
3. The Act does not apply to work carried out in or on an aircraft as meant in Article 1.1, paragraph one, of the Aviation Act made available to an employer not established in the Netherlands, unless:
 - a. this employer has a majority of his employees originating from the Netherlands carrying out work in or on it;
 - b. this involves loading and unloading, extending, converting, repairing, dismantling, maintenance, cleaning and other associated activities connected with any of the said aircraft situated in the Netherlands.
4. The Act does not apply to work carried out in or on an aircraft as meant in Article 1, opening sentence and under f of the Aviation Act.
5. The fourth paragraph does not apply to the loading, unloading, extending, converting, repairing,

dismantling, maintenance, cleaning and other activities connected with the aircraft meant in the fourth paragraph and situated in the Netherlands.

Article 1.20. Restriction of the right to stop work

1. Article 29 of the Act does not apply to work carried out in or on a seagoing vessel or an aircraft respectively insofar as the application of this Article contradicts the obligations resulting from carrying out the powers of captain or commander respectively as meant in Article 341 of the Commercial Code or the *Besluit vluchtuitvoering* [Aircraft Operations Decree] or an EU aviation regulation designated by order of Our Minister of Infrastructure and the Environment, respectively.
2. Article 29 of the Act does not apply to work carried out by the commander or captain as meant in the first paragraph, in or on a seagoing vessel or an aircraft respectively, insofar as the application of this Article would contravene obligations resulting from the Commercial Code or the Aircraft Operations Decree or an EU aviation regulation designated by order of Our Minister of Infrastructure and the Environment.

Article 1.21 [Repealed as of 01/01/2005]

Section 6. Custodial institutions

Article 1.22. Safety in custodial institutions

1. Articles 10, 27, 28, 28a and 29 of the Act apply to the work carried out by judicial personnel in the custodial institution insofar as this does not infringe upon the order, security or the proper state of affairs in the institution or the undisturbed course of the implementation of the deprivation of liberty and other restrictions imposed by any legal provision by the competent authorities.
2. The first paragraph applies accordingly to prisoners, patients and young persons on the understanding that instead of Articles 10, 27, 28 and 29 of the Act one should read Articles 24, paragraph seven, 27, 28, 28a and 29 of the Act.

Article 1.23. State security

With regard to work carried out by judicial personnel in the custodial institutions, the Act will be applied with due observance of the national and international rules for data protection applicable to the civil service, the secrecy of which is required in the interest of the State or its allies.

Article 1.24 Viewing of risk assessment and evaluation

By way of departure from Article 5, paragraph six, of the Act, a detainee, patient or young person may view the risk assessment and evaluation, to the extent that this does not jeopardise order or safety in the detention centre.

Article 1.25. Co-operation

Contrary to Article 12, first paragraph, of the Act, the managing director of the institution and the prisoners, patients or young persons should co-operate as much as possible in carrying out the prisoners, patients and young persons working conditions policy in a custodial institution.

Section 7. Defence

Article 1.26. Applicability

Unless otherwise provided for in this Section, the Act applies to work carried out by defence personnel.

Article 1.27. State security

1. Implementation of the Act concerning work carried out by defence personnel should take place with due observance of the national and international provisions for data protection applicable to the Ministry of Defence, the secrecy of which is required in the interest of the State or its allies.
2. Implementation of the Act with regard to work carried out in public service by or for the military intelligence and security services should additionally take place with due observance of the care entrusted to the heads of these departments for the secrecy of the information they obtain and of the sources from which it originates and for properly safeguarding the security of the persons whose services are being used in collecting the information.

Article 1.28. International obligations

Implementation of the Act with regard to work carried out by defence personnel will take place with due observance of international obligations.

Article 1.29. Total exclusion

The Act does not apply to work carried out by defence personnel:

- a. during war, threat of war or other extraordinary circumstances relating to or associated with it including the cases listed in Article 71 of the Military Penal Code;
- b. in other cases to be determined by Our Minister of Defence where armed forces are deployed including rendering assistance under the Articles 57, 58 or 59 of the Police Act 2012 or under Article 146, second paragraph, of the Code of Criminal Procedure and rendering assistance in the public interest.

Article 1.30. Partial exceptions to Articles 3 and 16 of the Act

Article 3, paragraph one, of the Act and the Articles 1.37 and 1.141 based on Article 16 of the Act, Sections 5, 6, 6A and 8 of Chapter 2, and the Chapters 3 to 8 of this Decree are not applicable:

- a. during, immediately before and immediately after exercises;
- b. with respect to military vessels, military aircraft, manned weapon systems and stand-by units:
 - 1°. insofar as at Our Minister's discretion deviation from these Articles, Chapters or Sections are required in connection with the building, construction, fitting out or equipment of these vessels and weapon systems;
 - 2°. if warships are at sea and if military aircraft and manned weapon systems are in use as such;
 - 3°. insofar as at Our Minister's discretion the operational performance of duties of these vessels and weapon systems or of stand-by units would be impeded by application of these Articles, Chapters or Sections.

Article 1.31. Partial exception to Article 10 of the Act

Insofar as the Act applies to work carried out by defence personnel, Article 10 of the Act applies to work carried out by defence personnel:

- a. entrusted with any police duty or with guard or security duties, or
- b. carrying out watch duties, or
- c. deployed to provide assistance as meant in Article 1.29, under b, to the police insofar as application of the said Article does not form an impediment to the proper performance of duties.

Article 1.32. Partial exception to Article 12 of the Act

Article 12 of the Act will be applicable except:

- a. during exercises;

- b. with regard to matters directly relating to the holding of exercises;
- c. with regard to matters directly relating to work as meant in Article 1.29.

Article 1.33. Partial exceptions to Articles 27, 28 and 28a of the Act

1. Articles 27, 28 and 28a of the Act do not apply:
 - a. during, immediately before and immediately after exercises;
 - b. to stand-by units.
2. Articles 27, 28 and 28a of the Act do not apply to military vessels, military aircraft and manned weapon systems:
 - a. if warships are at sea and if military aircraft and manned weapon systems are in use as such;
 - b. in the cases meant in Article 1.30, under b, sub 3.
3. Articles 27, 28 and 28a of the Act apply to the personnel of the Royal Netherlands Military Constabulary, subject to this personnel being actually engaged in the carrying out of specific duties entrusted to the Royal Netherlands Military Constabulary in Article 4, paragraph one, of the Police Act 2012.
4. In addition to the third paragraph, Articles 27, 28 and 28a of the Act apply to work carried out by personnel of the Royal Netherlands Military Constabulary in the event of rendering assistance as meant in Article 1.29, under b, insofar as the application of these Articles does not impede the proper performance of this assistance.

Article 1.34. Exception to Article 29 of the Act

Article 29 of the Act does not apply to military personnel.

Section 8. Young persons

Article 1.35. Definition

In this Section the directive means: Directive No. 94/33/EEC of the Council of the European Union of 22 June 1994 concerning the protection of young persons at work (*OJ EC L 216*).

Article 1.36. Detailed provisions for risk assessment and evaluation

1. If one or more young employees are employed or are usually employed in a business or establishment, in the risk assessment and evaluation as meant in Article 5 of the Act, special attention should be given to:
 - a. the specific hazards of working conditions as a result of a lack of work experience, not being able to assess the hazards properly and the young employee not having sufficiently developed mentally or physically;
 - b. the equipment and organisation of the workplace;
 - c. the nature, extent and duration of the exposure to substances, agents and physical factors;
 - d. the choice and use of work equipment and personal protection devices;
 - e. the overall activities in the business or the establishment and their organisation, and
 - f. the training level of the young employees and the information to be provided to them.
2. In addition, special attention should be given in the risk assessment and evaluation to the non-exhaustive list of agents, processes and activities, included in the Annex of the Directive.

Article 1.37. Expert supervision

1. If young employees are carrying out activities in a business or establishment, this work should be

adequately and expertly supervised. The content and extent of the supervision depends on the hazards shown in the risk assessment and evaluation as meant in Article 5 of the Act which might arise if expert supervision was lacking.

2. If it appears from the risk assessment and evaluation meant in Article 1.36 that young employees have to carry out work associated with specific hazards, particularly with respect to accidents at work which may occur as a result of a lack of work experience, from not being able to assess hazards and from the young employee having insufficiently developed mentally and physically, this work may only be carried out if the expert supervision has been organised in such a manner that those hazards are prevented. If this is not possible, this work should not be carried out by young employees.

Article 1.38. Occupational health medical examination

In addition to Article 18 of the Act, young employees are given the opportunity to submit to an occupational health medical examination as soon as it appears from the risk assessment and evaluation meant in Article 1.36 that young employees have to carry out work associated with specific hazards, particularly with respect to accidents at work which may occur as a result of a lack of work experience, from not being able to assess hazards properly and the young employee having insufficiently developed mentally or physically.

Article 1.39. Exceptions of pupils and students in educational institutions

This Section and division 4 of Section 5 of Chapter 3, division 2 of Section 10 of Chapter 4, division 3 of Section 6 of Chapter 6 and division 2 of Section 6 of Chapter 7, do not apply to pupils and students in educational institutions.

Section 9. Pregnant and breast-feeding employees

Article 1.40. Definition

In this Section the directive means: Directive No. 92/85/EEC of the Council of the European Communities of 19 October 1992 concerning measures to promote improvement of the health and safety of employees during pregnancy, after the delivery and during breast-feeding (*OJ EC L 348*)

Article 1.41. Risk assessment and evaluation

If a pregnant or breast-feeding employee is or is usually employed in a business or establishment, special attention should be given in the risk assessment and evaluation, as meant in Article 5 of the Act, to the non-exhaustive list of agents, processes and working conditions included in Annex I of the Directive.

Article 1.42. Organisation of the work

1. Without prejudice to Article 4:5 of the Working Hours Act, the employer should organise the work of a pregnant or breast-feeding employee in such a manner, organise the workplace to such an extent, apply such a production and working method and should have such work equipment used that the work will not constitute any hazard to the health and safety of this employee and cannot cause any negative effect on the pregnancy or lactation.
2. If compliance with the provisions set out in the first paragraph is not reasonably possible, a temporary adjustment of the work or temporary adjustment of the working and resting hours should prevent any danger to health and safety of the pregnant or breast-feeding employee from occurring and should avoid any negative affect on the pregnancy or lactation.
3. If compliance with the provisions set out in the second paragraph is not reasonably possible, other work should be given temporarily to the pregnant or breast-feeding employee.
4. If compliance with the provisions set out in the third paragraph is not reasonably possible, the

pregnant or breast-feeding employee should be temporarily released from carrying out work.

Article 1.42a. Information

The employer shall provide for effective information on the risks of the work during pregnancy and breast-feeding and the measures taken to avoid the risks. The information shall be provided within two weeks of a pregnant or breast-feeding employee notifying the employer that she is pregnant or working during the period in which she is breast-feeding.

Section 10. Location-independent work

Article 1.43. Definitions

1. In this Decree and the corresponding regulations, location-independent work is understood to mean:
 - a. work assigned by an employer as referred to in Article 1, first paragraph, under a, or second paragraph, under a, sub 1°, of the Act, to an employee as referred to in Article 1, first paragraph, under b, of the Act, or an employee as referred to in Article 1, second paragraph, under b, of the Act insofar as this employee carries out work for an employer as referred to in Article 1, second paragraph, under a, sub 1°, of the Act, in a home or a location outside the company or business premises chosen by this employee that is not the employer's place of business; or
 - b. work assigned by an employer as referred to in Article 1, second paragraph, under a, sub 2°, of the Act, in the context of the exercise/operating of a profession or business pursuant to a contractor agreement or a contract for services, to an employee as referred to in Article 1, second paragraph, under b, of the Act, in a home, unless the other party independently exercises or operates a profession or business in which he frequently undertakes to carry out such work for third parties.
2. Location-independent work, as referred to in the first paragraph, does not include:
 - a. work carried out to the home or for the benefit of constructing, altering, repairing, ornamenting, finishing or making suitable for use or maintaining or making the home more suitable in another manner;
 - b. work of a nursing, caring or domestic nature, offered to persons in connection with illness, recuperation, age, being handicapped, death, psycho-social or relational problems.

Article 1.44. General applicability

1. Location-independent work is only governed by this Decree and its corresponding provisions if this has been stipulated in this Chapter, such in accordance with the rules set out in this Chapter and in Chapter 9.
2. If the location-independent work involves an employee who is also a young employee, the provisions set out for the young employee do not apply.

Article 1.45. Applicability of Chapter 2

Parts 3 and 4 of Chapter 2 apply accordingly to location-independent work.

Article 1.46. Applicability of Chapter 4

1. The carrying out of location-independent work that involves hazardous substances is only permitted with the following substances:
 - a. substances that exclusively meet the criteria pursuant to Article 9.2.3.1 of the Environmental Management Act for classification in the categories «harmful», «irritant», «inflammable» and «environmentally hazardous», unless these substances meet the criteria pursuant to this Act for

- allocation of the R-phrases 1, 4, 5, 6, 14, 19, 29, 30, 31, 32, 33, 40, 44, 48, 64 or 68;
- b. substances that meet none of the criteria for classification pursuant to Article 9.2.3.1 of the Environmental Management Act, unless these substances carry the special hazard signs as referred to in Annex V, Section B, under 2 or 6 to Directive 1999/45/EC of the European Parliament and of the Council of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations (OJ EC 1999 L 200).
2. With regard to the substances referred to in the first paragraph, under a, such with the exception of substances that only meet the criteria pursuant to Article 9.2.3.1 of the Environmental Management Act for classification in the category «environmentally hazardous», it must invariably be established, as part of the risk assessment and evaluation as referred to in Article 5 of the Act, which substances the employees are or may be exposed to and the hazards involved in handling such substances.
 3. With regard to the packaging of a substance that is hazardous to safety or health, and to the closure of this packaging, Article 9.2.3.3, first to third paragraph of the Environmental Management Act applies accordingly.
 4. On the packaging of a substance, referred to in the third paragraph, the labelling that must be used for this substance pursuant to its compliance with the criteria for classification in the categories referred to in the first paragraph, under a, for its delivery or pursuant to the Environmental Management Act, must be noticeable and clearly readable, with the exception of the labelling that concerns the category «environmentally hazardous».
 5. Effective measures should be taken to prevent home workers from being exposed to substances in the course of their work to such an extent that damage could be inflicted on their health.
 6. Skin contact is prevented or minimised by wearing effective personal protective equipment in the event of possible exposure to a single or compound substance that:
 - a. meets the criteria for classification for substances with an effect on the skin or the eyes, including the classification causing skin cancer according to Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances. (OJ CE 1967, 196) or Directive 1999/45/EC of the European Parliament and of the Council of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations (OJ CE 1999, L 200); or
 - b. as referred to in Article 4.3, first or second paragraph, or 4.16, first or second paragraph.
 7. If the work involves substances constituting a fire hazard, the employee must be provided with reliable and effective means to extinguish or put out fires.
 8. If substances are present that may be detrimental to the employee's safety or health, effective measures must be taken to prevent the occurrence of an unintended event concerning these substances as much as possible.
 9. When working with substances referred to in the eighth paragraph, effective measures must be taken to prevent the occurrence of an unintended event during this work as much as possible.
 10. Furthermore, it is imperative that such measures be taken that the effects of an unintended event as referred to in the eighth or ninth paragraph are restricted as much as possible.
 11. In all events in which employees may be exposed to hazardous substances during their work, information and training must be provided in accordance with Article 8 of the Act. This must include in any event:
 - a. the outcome of the risk assessment and evaluation, as referred to in the second paragraph;

- b. the measures that have been taken pursuant to the fifth paragraph; and
- c. the measures that have been taken to prevent or limit the occurrence of unintended events pursuant to the seventh, eighth, ninth or tenth paragraph.

Article 1.47. Applicability of Chapter 5

1. Sections 1 and 2 of Chapter 5 apply accordingly to location-independent work.
2. If the employee carries out location-independent work in his own home, the employer will provide him with a workplace as referred to in Articles 5.4 and 5.12, unless the employee already has such a workplace at his disposal.

Article 1.48. Applicability of Chapter 6

If the employee carries out location-independent work in his own home, the employer will provide him with facilities for artificial lighting as referred to in Article 6.3, second paragraph, unless the employee already has such facilities at his disposal.

Article 1.49. Applicability of Chapter 7

1. Sections 1, 2 and 3 of Chapter 7 apply accordingly to location-independent work.
2. **The work equipment** required for the work must be provided with effective protection if it constitutes any danger to persons.
3. The work equipment required for the work which has a control system must be placed as closely as possible to the person who operates the equipment, and must be designed in such a way that the work equipment can be turned off separately, safely and with certainty and it is not possible to turn the equipment back on unintentionally.
4. The required work equipment must be properly serviced and repaired, if necessary.
5. If the work requires work equipment with a control system that involves dangers of an electrical nature, effective safety measures must be taken whose operation must be as independent as possible from the person who operates the work equipment.
6. If it is necessary to connect electrical equipment or lay pipes or cables in the employee's home for the carrying out of the location-independent work, this must be done in a way that guarantees the safe use of this equipment by the employee.

Article 1.50. Applicability of Chapter 8

Section 1 of Chapter 8 applies accordingly to location-independent work.

Article 1.51. Availability of data

In the event of location-independent work carried out by the employee, the employer must have data available on the employee in question, including his name, address and domicile as well as the activities being carried out by him and of the substances, aids and tools being used in this respect.

Article 1.52. Stock

In the event of location-independent work, it is not allowed to give the employee as stock to or have him keep in storage, a larger quantity of raw materials, semi-finished products and ready-made products other than what is required for the work.

Article 1.53. Notification of accidents at work

If, when carrying out location-independent work, an employee has an occupational accident as meant in Article 9, paragraph one, of the Act, he should notify the employer of this immediately.

Chapter 2. Health and safety management and organisation of the work

Section 1. Electronic notification

Article 2.1. Reporting data

1. If an employer or client must make a notification to the supervisor pursuant to the statutory provisions, he must do so electronically. If the network is disrupted to the extent that the employer or client cannot provide the data to the supervisor within the set term, the notification must be made in another suitable manner.
2. Contrary to the first paragraph, an employer must notify the supervisor by telephone in the event of occupational accidents that have resulted in the death of the employee.

Section 1.a. Notification of occupational diseases

Article 2.1a. Data on occupational diseases

Provisions will be laid down in a Ministerial Order with regard to data provided when an occupational disease is notified as meant in Article 9, paragraph three, of the Act.

Section 2. Supplementary provisions for risk assessment and evaluation to prevent and restrict major accidents with dangerous substances

Article 2.2. Definitions

In this Section the following terms have the following meanings:

- a. dangerous substance: flammable, highly toxic, toxic or explosive substance;
- b. flammable substance: a substance having a process temperature which is equal or higher than the flashpoint, determined by means of the Abel - Pensky device for flashpoints up to and including 65 °C or determined by means of the Pensky - Martens device for flashpoints above 65 °C;
- c. highly toxic substance:
 - 1°. a substance possessing acutely poisonous characteristics and thereby being able to create a health hazard on a single exposure for a relatively short period, whether or not with a delayed effect and which has the following characteristics:
 - that the lethal concentration of 50 when a rat is exposed for four hours, is less than or equal to 20 milligrams per cubic metre, or
 - that the lethal concentration of 50 when administered orally to a rat, is less than or equal to 1 milligram per kilogram, or
 - that the lethal concentration of 50 when administered percutaneously to a rat, is less than or equal to 2 milligram per kilogram;
 - 2°. the following substances carcinogenic for humans with a high potency: 2-acetyl aminofluorene, 4-aminodiphenyl, benzidine, bi-chloride methyl ether, dialkyl nitrosamine, 4-dimethyl amino azobenzene, methyl nitroso urea, 2-naphthylamine, 4-nitrodiphenyl and 3-nitro naphthylamine;
- d. toxic substance: a substance not being a highly toxic substance containing acute poisonous characteristics and therefore being able to create a health hazard after a single exposure for a relatively short time whether or not with a delayed effect and which has the characteristic that the lethal concentration of 50 when a rat is exposed for one hour, is less than or equal to 20,000 milligrams per cubic metre;
- e. explosive substance: a substance which pursuant to the Environmental Management Act complies with the criteria for classification into the «explosive» category, as referred to in Article 9.2.3.1, second paragraph, under a, of that Act;
- f. installation: a processing installation or a storage installation;

- g. processing installation: the system of barrels, devices and piping which can form or forms a whole with respect to the substance contained therein and serves for the manufacture, processing, loading or destruction of this substance;
- h. storage installation: the tanks, silos, bunkers and packaging units serving as storage on the understanding that these units are situated outside the spatial borders of a processing installation and whereby as to tanks, silos and bunkers, each unit should be regarded as an autonomous storage installation; The term storage installation also includes tanks intended for transport and packaging intended for the transport of dangerous substances;
- i. process temperature: the maximum temperature which can be reached in storage or processing under normal operating conditions;
- j. encasement: a construction encasing a processing or storage installation impeding or preventing the natural ventilation of the encased installation and in which employees regularly carry out work;
- k. limit value: the quantity of a substance expressed in kilograms which when suddenly released may still threaten the life or health of an employee situated at about 100 metres distance from the point of emission;
- l. major accident: an event resulting from uncontrolled developments in the course of the operation in a business or establishment causing either immediately or over the course of time serious danger to the health of employees and involving one or more dangerous substances;
- m. scenario: the series of events and circumstances which are required for or lead to a release of dangerous substances as well as a series of events representing the effect of the release in this manner of dangerous substances.

Article 2.2a [Repealed as of 25/02/2004]

Article 2.2b [Repealed as of 25/02/2004]

Article 2.2c [Repealed as of 25/02/2004]

Article 2.2d [Repealed as of 25/02/2004]

Article 2.2e [Repealed as of 25/02/2004]

Article 2.2f [Repealed as of 25/02/2004]

Article 2.3. Applicability

1. This Section is, with due observance of the third and fourth paragraph and Articles 2.3a and 2.3b, applicable to businesses and establishments where one or more installations are present in which a quantity of dangerous substances expressed in kilograms are present, regardless of the intended handling of these substances, or a quantity of such substances expressed in kilograms can be generated as a result of loss of control of an industrial chemical process, which multiplied by the applicable circumstantial factor or factors as meant in Article 2.5 is equal to or exceeds the limit value as meant in Article 2.4.
2. If the first paragraph applies, this Section will apply accordingly to workplaces situated close to the business or the establishment for which the employer is responsible.
3. With regard to an installation as meant in the first paragraph in which a substance or a group of substances with an identical limit value under various circumstances is/are located, any partial quantity of the substance or group of substances under the same circumstances will be multiplied by the applicable circumstantial factors. This Section is applicable if the sum total of the partial quantities whether or not corrected is equal to or exceeds the limit value of the respective substance or group of

substances.

4. With respect to an installation, as meant in the first paragraph, containing substances with various limit values, each quantity of a substance or group of substances with an identical limit value will be multiplied by the applicable circumstantial factors. This Section is applicable if with regard to one of the categories of substances mentioned in Article 2.4, first paragraph, under a or b, or Article 2.4, second paragraph, the sum total of the quotients of the respective quantities, whether or not corrected, and the limit values of the substances belonging to that category and present in the installation, is equal to or greater than 1.
5. The multiplication by a circumstantial factor or factors as meant in this Article will not be applied to explosive substances.

Article 2.3a. Applicability to transport-specific establishments

1. In this Article the term storage in connection with the transport of dangerous substances means: storage of packaged dangerous substances as meant in Article 2.2, under a, for short periods while awaiting onward transport to a predetermined recipient, including loading and unloading of the said substances and their transport to or from another means of transport, in so far as connecting transport has actually been arranged and the respective dangerous substances remain in their original packaging;
2. With regard to an establishment which belongs to a designated category pursuant to Article 1.1, paragraph three, of the Environmental Management Act and is intended for storage in connection with the transport of dangerous substances, whether or not in combination with other substances and products in which dangerous substances are permitted to be present pursuant to a license under Article 2.1, first paragraph, first sentence and under e, of the General Provisions of Environmental Law Act, for the purposes of this Section, the calculation of the quantity of dangerous substances as meant in Article 2.3 can be omitted.

Article 2.3b. Exceptions scope of application

1. This Section is:
 - a. with the exception of Article 2.5f not applicable to businesses or establishments to which division 3 of the Major Accidents (Risks) Decree 1999 is applicable;
 - b. not applicable to businesses and establishments to which the Environmental Storage and Transport Companies Decree is applicable;
 - c. not applicable to work carried out in the underground mining industry and the mineral extracting industry through drilling.
2. Articles 2.5a, first and second paragraph, and 2.5d, first paragraph, under a, are not applicable to businesses or establishments to which division 2 of the Major Accidents (Risks) Decree 1999 is applicable.

Article 2.4. Limit values

1. The limit value meant in Article 2.3, first paragraph, amounts to:
 - a. for flammable substances: 10 000 kilograms;
 - b. for highly toxic substances: 1 kilogram;
 - c. for explosive substances: the quantity the explosive energy of which is equivalent to the explosive energy of 1000 kilograms of trinitrotoluene, the explosive energy of which is set at 4600 kilojoules per kilogram.
2. With respect to toxic substances the limit values as meant in Article 2.3, first paragraph, are derived on the basis of the toxicological information and physical circumstances at 25 °C of the limit value of chlorine, setting the limit value of chlorine at 300 kilograms. This derivation is based on a lethal

concentration of 50 when exposing a rat to the substance for one hour.

Article 2.5. Circumstantial factors

The circumstantial factors meant in Article 2.3, first paragraph, are:

- a. for a substance situated in a processing installation: 1;
- b. for a substance situated in a storage installation: 0.01;
- c. for an installation placed in the open air: 1;
- d. for an installation placed in an encasement: 10;
- e. for a substance in a liquid phase the process temperature of which is equal to the atmospheric boiling point of this substance: 1; for each 10 °C that this process temperature is above the atmospheric boiling point this factor will be increased by 1 up to a maximum of 10, rounded off to a whole number and for each 10 °C that the process temperature is under the atmospheric boiling point this factor will be reduced by 0.1 up to a minimum of 0.1 rounded off to one decimal point;
- f. for a substance in a liquid phase the process temperature of which is lower than the ambient temperature, being 25 °C: 1; for each 50 °C that the atmospheric boiling point of the respective substance is below 25 °C this factor will be increased by 1 up to a maximum of 4 rounded off to whole numbers;
- g. for process circumstances where factors mentioned under e and also under f apply, a multiplication factor applies which is equal to the sum total of the multiplication factors e and f, less 1 and with a maximum of 10;
- h. for a substance in a gaseous phase: 10;
- i. for a substance in a solid phase: 0.1.

Article 2.5a. Detailed provisions for policy design with regard to major accidents

1. The general objectives and principles of the policy with regard to the control of major accident risks as meant in Article 6, first paragraph, of the Act must be laid down in writing.
2. In order to determine and execute the policy, meant in the first paragraph, a safety management system will be implemented which is also based on the risk assessment and evaluation meant in Article 2.5b.
3. Further provisions with respect to the safety management system meant in the second paragraph will be laid down in a Ministerial Order.

Article 2.5b. Additional provisions for risk assessment and evaluation

1. In the risk assessment and evaluation meant in Article 5, first paragraph, of the Act:
 - a. the risks of accidents with dangerous substances will be systematically identified and evaluated on the basis of procedures determined to this end by the employer both during the normal operations as well as the abnormal operations of the installation or the industrial, chemical process. In this respect the presence of other substances are taken into account that in a specific situation can contribute to the risk of a major accident;
 - b. the scenarios for possible major accidents will be described. In choosing the scenarios, external hazards for the installation are taken into account. The chance of a major accident occurring and the effect of a major accident having taken place will be quantified as much as possible in the scenarios.
2. On the basis of the risk assessment and evaluation meant in paragraph one under a:
 - a. in order to avoid a major accident, all technical and organisational measures will be taken which are required to guarantee the safe operation of the installations both under normal operations as well as during temporary interruptions or maintenance, or in connection with a change to the existing installations or the construction of new installations. The first sentence applies accordingly with regard to all storage facilities, equipment and infrastructure in connection with

- the risks of a major accident in the business or the establishment.
- b. all technical and organisational measures will be taken to restrict the consequences of a major accident as much as possible.
3. A description of the measures meant in the second paragraph will be included in the descriptions of the scenarios meant in the first paragraph under b.
 4. The description of the scenarios, meant in the first paragraph under b, and the description of the measures taken, meant in the third paragraph, demonstrates that the risks with regard to major accidents are under control in an adequate manner.
 5. In a Ministerial Order detailed provisions will be laid down with regard to the procedures, meant in the first paragraph, under a, and the description of scenarios, meant in the first paragraph under b.

Article 2.5c. Internal emergency plan

1. In order to plan for emergencies an internal emergency plan will be formulated which is based on the risk assessment and evaluation meant in Article 2.5b, first paragraph, and the measures taken on the basis of this, meant in Article 2.5b, second paragraph.
2. When the internal emergency plan is formulated or changed, consultations will be held with the interested employees should there be no works council or staff representation body. Consultations about the internal emergency plan and changes to it will also be held with the employees of other employers who on the basis of a long-term building contract are also working in the business or establishment.
3. The internal emergency plan will be tested, evaluated and if necessary amended at least once every three years.
4. The employer will ensure that the employees, the company emergency response staff meant in Article 15, paragraph 1 of the Act and the external emergency services, meant in Article 3, paragraph 1, point e of the Act, the experts, mentioned in Article 13 of the Act, the experts or health and safety services, mentioned in Articles 14 and 14a of the Act, and the employees of other employers who are also working in the business or establishment, can when requested inspect the internal emergency plan.
5. Detailed provisions will be laid down in a Ministerial Order with regard to the data included in the emergency plan.

Article 2.5d. Changes and periodic evaluation

1. If a change of a technical or organisational nature is made in the business or the establishment or a part thereof or in the work methods and the production method applied, which might have significant consequences for the risk of a major accident or when a change in safety ideas gives rise to this, the following will be ensured:
 - a. the policy meant in Article 2.5a, first paragraph, and the safety management system, meant in Article 2.5a, second paragraph, will be re-assessed and if necessary revised
 - b. the risk assessment and evaluation, meant in Article 2.5b, first paragraph, under a, and the description of scenarios, meant in Article 2.5b, first paragraph, under b, will be re-assessed and if necessary revised;
 - c. the measures taken, meant in Article 2.5b, second paragraph, and the internal emergency plan, meant in Article 2.5c, are adjusted accordingly to the changed situation.
2. Notwithstanding the first paragraph, the risk assessment and evaluation, meant in Article 2.5b, first paragraph, under a, will be made once every five years.

Article 2.5e. Expert assistance

1. In addition to Article 14, paragraph one, of the Act, the employer must be assisted with regard to the following duties by the person, meant in Article 14, paragraph one, of the Act who is entrusted with the duties as meant in Article 14, paragraph one, under a, of the Act and who has been engaged by the employer or the employer's health and safety service in:
 - a. determining the policy as meant in Article 2.5a, paragraph one;
 - b. formulating a safety management system as meant in Article 2.5a, second paragraph;
 - c. carrying out and formulating an additional risk assessment and evaluation as meant in Article 2.5b, first paragraph, under a, including also testing them;
 - d. formulating the descriptions, meant in Article 2.5b, first paragraph, under b, and third paragraph;
 - e. formulating an internal emergency plan as meant in Article 2.5c, including also testing this;
 - f. implementing the amendments, meant in Article 2.5d, including also, insofar as this is applicable, testing them.
2. The term assistance with these duties, meant in the first paragraph, also includes advising on the execution of these tasks.

Article 2.5f. Neighbouring businesses or establishments

If a major accident can have consequences for the safety of employees in neighbouring businesses or establishments, the employer will of his own accord provide the respective businesses or establishments with general information which is necessary to assess the risk for the safety of the employees in the neighbouring business or establishment.

Article 2.5g. Notification and passing information on

1. The following should be notified by the employer to the designated supervisor:
 - a. the name and the address of the employer and, if different, the name and address of the business or establishment to which Article 2.3 applies;
 - b. which institutions are covered by the obligation as meant in Article 2.3, first paragraph;
 - c. the name and address of the expert meant in Article 14, paragraph one, of the Act or the health and safety service assisting with the duties meant in Article 2.5e, first paragraph.
2. If a change of a technical or organisational nature is made in a business or establishment or a part thereof or to the operation of the business or establishment or a part thereof which could have significant consequences for the risks of a major accident with dangerous substances, a new notification will take place as meant in the first paragraph.
3. The supervisor, meant in the first paragraph will immediately send a copy of the notice to:
 - a. the administrative authority which has the power to grant a license pursuant to Article 2.1, first paragraph, first sentence and under e, of the General Provisions of Environmental Law Act;
 - b. the municipal executive of the municipality in which the business or establishment is fully or partly situated unless the municipal executive is the administrative authority as meant under a;
 - c. the executive board of the safety region in which the business or establishment is situated

Article 2.5h. Operating prohibition

The business, establishment or a part thereof to which this Section applies or is designated pursuant to Article 6, paragraph two, of the Act will not be commissioned or will not continue to operate and the change, meant in Article 2.5d, first paragraph, opening sentence, will not be implemented before the obligations meant in Articles 2.5a, 2.5b, 2.5c, 2.5d and 2.5g have been complied with.

Article 2.6 [Repealed as of 01/01/2007]

Section 3. Health and safety services and experts

§ 1. Definitions

Article 2.6a. Definitions

1. In this Section and the provisions based on it, the following words have the following meaning:
 - a. internal expert: an expert as meant in Article 14, first paragraph, opening sentence, of the Act and who is working in the business or establishment under an employment contract or appointment under public law;
 - b. external expert: an expert as meant in Article 14, first paragraph, opening sentence, of the Act and who does not work in the business or establishment in a manner as meant under a;
 - c. internal health and safety service: a service as meant in Article 14a, paragraph two, of the Act;
 - d. external health and safety service: a service as meant in Article 14a, paragraph three, of the Act.
2. The term internal health and safety service also means a collaboration between at least an internal expert and external experts performing jointly the duties meant in Article 14, first paragraph, of the Act.

§ 2. Health and safety services and experts

Article 2.7. Expertise requirements

1. Experts in a health and safety service should be working in occupational and industrial medicine, labour hygiene, safety studies, ergonomics and organisational science.
2. An expert should have sufficient expertise and experience in the field indicated in the first paragraph, with the exception of occupational and industrial medicine, if he is in the possession of a certificate of competence in labour hygiene, safety studies or labour and organisational science issued by Our Minister or by a certifying institution.

Article 2.8. [Repealed as of 01/01/2009]

Article 2.9. Requirements as to functioning

1. A health and safety service should:
 - a. perform its duties with due observance of the latest technological and scientific insights and professional service;
 - b. give advice on the implementation of structured, systematic and adequate policy with regard to absenteeism due to working conditions in such a manner as to contribute as much as possible to this being effected, in particular taking into account special groups of employees and also events which have occurred in the business or the establishment;
 - c. be aware of and assess the hazards of the technology in use and of the organisation and human behaviour, as well as taking account of events which have occurred in the business or in the establishment;
 - d. evaluate the service;
 - e. take care of the continuity of the service, and
 - f. deal with complaints about the service.
2. Detailed provisions concerning the functioning of the health and safety service can be laid down by a Ministerial Order.

Article 2.10. Organisational requirements of the health and safety service

1. An external health and safety service should be incorporated.

2. Except for the collaboration as meant in Article 2.6a, second paragraph, at least one expert should be working in the fields mentioned in Article 2.7, first paragraph, under an employment contract or an appointment under public law for an indefinite period of time.

Article 2.11. Equipment requirements

A health and safety service should have accommodation and equipment at their disposal such that protection of the privacy of the employees of the affiliated businesses is guaranteed.

Article 2.12. Data provision

1. When requested to do so the external health and safety service or the employer of the internal health and safety service should supply Our Minister with statistical data concerning the performance of its duties.
2. Provisions may be laid down by Ministerial Order concerning the nature of the data meant in the first paragraph and the form in which and the frequency with which these data are submitted.

Article 2.13. Collaboration

1. The collaboration, meant in Article 2.6a, second paragraph, must be laid down in a written agreement between the employer and the external experts or the employer of these experts. This agreement should in any event include the division of tasks between the internal expert and the external experts.
2. The collaboration will be entered into for a period which is in any event as long as the period of validity of the health and safety service certificate meant in Article 2.14, second paragraph, which is granted for this collaboration.

Article 2.14. Health and safety service certificate

1. An external health and safety service should be in the possession of a health and safety service certificate issued either by Our Minister or a certifying institution.
2. The employer of an internal health and safety service should be in the possession of a health and safety service certificate for its internal health and safety service issued by Our Minister or a certifying institution.
3. In the event of a health and safety service certificate issued to an external health and safety service being withdrawn, not being extended or conditions being attached to its extension, the service should immediately notify the employer for whose benefit the duties are being performed, and the works council or the staff representation body. Should there be no works council or staff representation body, the employer should make sure that interested employees are informed of this notice as soon as possible.
4. In the event of a health and safety service certificate issued to an internal health and safety service being withdrawn, not being extended or conditions being attached to its extension, the employer should immediately notify the works council or staff representation body or, should these be lacking, the interested employees and also if there is collaboration, the respective external experts.

Article 2.14a. Experts' tasks

1. With regard to the task meant in Article 14, paragraph one, under a, of the Act, assistance will be given by an expert who is at least in the possession of one of the certificates meant in Article 2.7, second paragraph, or a company doctor as meant in Article 14, paragraph one, introductory section, of the Act.
2. With regard to the tasks meant in Article 14, paragraph one, under b and c, of the Act, assistance will be given by a company doctor as meant in Article 14, paragraph one, introductory section, of the Act.

3. With regard to the experts and company doctors, Articles 2.9, 2.11 and 2.12 apply accordingly.

§ 3. Exceptions

Article 2.14b. Exception to assistance for risk assessment and evaluation

1. In applying Article 14, paragraph twelve, of the Act, the duration of the work carried out by a managing director principal shareholder or the person of a managing director principal shareholder as meant in the Designation of Managing Director Principal Shareholder Regulations is not taken into account.
2. The model meant in Article 14, paragraph 12, part b, under 1, of the Act must be reviewed by at least one expert who is in the possession of a certificate as meant in Article 2.7, second paragraph, or by a company doctor as meant in Article 14, paragraph one, introductory section, of the Act.
3. The instrument referred to in Article 14, paragraph 12, part b, under 2, of the Act
 - a. is drawn up with the involvement of employers' organisations and trade unions, at least at the sectoral level;
 - b. is reviewed by at least one expert who is in the possession of a certificate as meant in Article 2.7, second paragraph, or by a company doctor as meant in Article 14, first paragraph, introductory section, of the Act;
 - c. is reported jointly by the employers' organisations and trade unions concerned, and
 - d. is valid for at least three years following reporting.
4. When using the model or instrument the employer has to take into account the specific circumstances in the business or the establishment.

Article 2.14c. Exception to assistance for absenteeism due to illness

The obligation to engage an expert or a health and safety service in connection with the task meant in Article 14, paragraph one, under b, of the Act is not applicable to an employer who exclusively:

- a. allows persons to carry out work under his authority without an employment contract or appointment under public law;
- b. allows persons to carry out work on call towards whom he has - after the call for work has been completed - no obligation to continue to pay wages during sickness pursuant to Article 629 of Book 7 of the Civil Code.

Section 4. Psycho-social workload

Article 2.15. Measures to prevent or restrict the psycho-social workload

1. If employees are or can be exposed to a psycho-social workload, the risks with regard to the psycho-social workload must be assessed in connection with the risk assessment and evaluation meant in Article 5 of the Act, and, with due observance of the latest technological and scientific insights, measures be determined and implemented in the plan of action meant in Article 5 of the Act in order to prevent the psycho-social workload or – if this is not possible – to restrict this.
2. Where there is a danger of being exposed to psycho-social workload, information and instructions should be given to employees who carry out such work about the risks of psycho-social workload as well as about the measures aimed at preventing or restricting this load.

Article 2.16 [Repealed as of 01/01/2007]

Article 2.17 [Repealed as of 01/01/2007]

Article 2.18 [Repealed as of 01/01/2007]

Article 2.19 [Repealed as of 01/01/2007]

Article 2.20 [Repealed as of 01/01/2007]

Article 2.21 [Repealed as of 01/01/01/01/2007]

Article 2.22 [Repealed as of 01/01/01/01/2007]

Section 5. Construction process

Article 2.23. Definitions

In this Section the following terms mean the following:

- a. Directive: Directive No. 92/57/EEC of the Council of the European Communities of 24 June 1992 concerning the minimum health and safety requirements for temporary and mobile construction sites (OJ EC L 245);
- b. design stage: the study, design and implementation stage of the construction design;
- c. implementation stage: the phase in which the structure is actually brought about.

Article 2.24. Designation

For the purposes of Article 16, paragraph eight, of the Act, the client, the designing party and the implementing party should be designated.

Article 2.25. Applicability

This Section does not apply to work carried out in opencast mining, underground mining or mining by drilling as meant in sections 6 and 6a of Chapter 2 of this Decree.

Article 2.26. General health and safety principles in the design of a structure.

The client will ensure that in the design stage the obligations for the working conditions which are applicable in the implementation stage are taken into account, in particular the obligations meant in Articles 3, 5, first and third paragraph, and 8 of the Act.

Article 2.27. Notification

1. The client, as referred to in Article 1.1, first paragraph, under c, sub 1° must notify the supervisor of the intention to create a structure before the commencement of the activities on the construction site, if:
 - a. the estimated duration of the creation of the structure covers more than 30 working days and more than 20 employees will carry out activities simultaneously on this construction site; or
 - b. more than 500 man working days will be involved in the creation of the structure.
2. A copy of the notification should be posted visibly on the construction site. If there is any change with respect to the information stated in the notification, the notification should be amended accordingly.

Article 2.28. Health and safety plan

1. The client must ensure that a health and safety plan is drawn up with regard to structures involving special dangers to the health and safety of employees as meant in Annex II to the Directive or a structure with regard to which a notification is required.
2. Depending on the progress of the construction process, the health and safety plan should at least include:
 - a. a description of the structure to be created, a summary of the businesses involved on the construction site, the name of the coordinator for the design and implementation stage;
 - b. an assessment and evaluation of the specific dangers resulting from simultaneous and subsequent implementation of the construction work and should the occasion arise from the interaction with continuing operating activities;
 - c. the measures resulting from the risk assessment and evaluation meant under b;
 - d. the arrangements with regard to the implementation of the measures meant under c;
 - e. the manner in which the measures are supervised;
 - f. the constructional, technical and organisational choices made in the design stage in connection with the health and safety of the employees;
 - g. the manner in which information and instructions are given to the employees on the construction site.

Article 2.29. Appointment of coordinators

If activities are carried out in the implementation stage by:

- a. two or more employers;
- b. one employer and one or more self-employed persons or
- c. two or more self-employed persons,

the client will appoint one or more coordinators for the design stage and the implementing party will appoint one or more coordinators for the implementation stage.

Article 2.30. Tasks of the coordinator for the design stage

The coordinator of the design stage has a duty to:

- a. co-ordinate the implementation of Article 2.26;
- b. draw up or have drawn up a health and safety plan as meant in Article 2.28;
- c. compose a file intended for the person who takes the decisions about the implementation of subsequent activities with regard to the structure. This file will include the constructional and technical characteristics which are relevant to the health and safety of employees carrying out subsequent activities.

Article 2.31. Tasks of the coordinator for the implementation stage

The coordinator of the implementation stage has a duty to:

- a. act in an organised manner so that the measures taken by employers and self-employed persons to protect the health and safety of employees are applied in an effective manner;
- b. organise the collaboration between employers and self-employed persons who are simultaneously or successively present on the construction site with a view to the protection of the employees;
- c. coordinate the information for the employees on the construction site;
- d. take the necessary measures to prevent unauthorised persons from entering the construction site;
- e. make sure that the health and safety plan meant in Article 2.28 and the file meant in Article 2.30 under c, are adjusted should the progress of the structure or parts thereof give rise to it;

- f. give instructions if in his opinion employers or self-employed persons do not or do not to a sufficient extent or inaccurately implement a coherent application of their obligations as meant under a and b.

Article 2.32. Additional obligations of the client

1. The client should take measures such that:
 - a. the coordinator can properly carry out the tasks meant in Article 2.30;
 - b. the coordinator properly carries out the tasks meant in Article 2.30;
 - c. the health and safety plan meant in Article 2.28 forms part of the specifications with regard to the structure and is available on the construction site before the commencement of the activities.
2. the client should ensure that the obligations for the implementing party meant in Articles 2.29 and 2.33 are laid down in a written agreement with the implementing party.

Article 2.33. Additional obligations for the implementing party

The implementing party should take measures such that:

- a. the coordinator can properly carry out the tasks meant in Article 2.31;
- b. the coordinator properly carries out the tasks meant in Article 2.31.

Article 2.34. Obligations of the designing party

In the event of a client-consumer the designing party, or if more designing parties are involved, the designing parties, must ensure that all the client's obligations are fulfilled.

Article 2.35. Obligations of the employer

1. In carrying out his obligations under Articles 3, 5, 8 and 19, first paragraph, of the Act, the employer who has work carried out in the course of creating a structure should take effective measures to protect the health and safety of his employees. These measures relate in particular to:
 - a. maintenance of the construction site in proper order and with sufficient protection of the health and safety of the employees;
 - b. safe location of the various workplaces on the construction site taking into account the possibilities of access to this construction site and the roads connecting to it;
 - c. the internal transport of the various materials on the construction site;
 - d. maintenance, the checks before putting into operation and the periodic checks of the installations and appliances in order to prevent defects which might harm the health and safety of the employees;
 - e. the delineation and layout of areas for final and intermediate storage of various materials particularly where these materials or substances are hazardous;
 - f. provisions for the removal of the hazardous materials used;
 - g. storage, disposal or removal of waste and rubble;
 - h. adjustment of the actual duration of the activities to be carried out or the stages in which these activities are carried out, depending on the progress of the structure;
 - i. cooperation with other employers and self-employed persons on the construction site;
 - j. interaction with operating activities on or close to the construction site.
2. Measures also to be taken on the basis of the first paragraph should in any event comply with Sections 1 and 2 of Chapter 3 of this Decree.
3. The employer is obliged to comply and cooperate with the health and safety plan meant in Article 2.28 insofar as and in the manner in which this is determined in it with regard to the activities to be carried out by him and in doing so to take into account the instructions of the coordinator for the implementation stage.

Article 2.36. [Repealed as of 01/01/2007]

Article 2.37 [Repealed as of 01/01/01/01/2007]

Article 2.38 [Repealed as of 01/01/01/01/2007]

Article 2.39 [Repealed as of 01/01/01/01/2007]

Section 6. Opencast mining, underground mining or mining by drilling

Article 2.40. Applicability

1. This Section applies to work carried out in the opencast mining industry, underground mining industry or extracting industry through drilling.
2. In deviation from the first paragraph, this section does not apply to work carried out in the opencast industry by dredging.

Article 2.41. Obligations of the employer

1. If manned workplaces are being used in the extracting industry, a responsible person should carry out supervision.
2. Activities to which special hazards are attached are exclusively entrusted to expert personnel with sufficient experience and are to be carried out in accordance with the instructions provided.
3. In connection with the safe use of a helicopter landing platform on a mining installation, employees are to be designated who are entrusted with the supervision of this use of the helicopter landing platform and who have the necessary skill and expertise to do so.
4. With respect to workplaces in the extracting industry the necessary safety exercises should be held at regular intervals.
5. Supplementary to Article 15 of the Act, the necessary alarm or other communication systems should be made available so that in emergencies immediate assistance, escape, evacuation and rescue can take place.
6. If in a workplace in the extracting industry only one employee is present, he should have telecommunication means at his disposal in order to contact others.

Article 2.42. Cooperation, health and safety document

1. For the purposes of Article 19, paragraph two, of the Act the activities are designated which are carried out in the opencast industry, the underground mining industry and the mineral-extracting industry by drilling.
2. Before the commencement of the work a health and safety document should be drawn up at least stating:
 - a. the risk assessment and evaluation of the hazards meant in Article 5 of the Act;
 - b. the measures meant in Article 5 of the Act with special attention to the measures taken or to be taken in order to comply with the provisions of this Section and Sections 1, with the exception of division 2a of that Section, 3, 3A, 3B and 3C of Chapter 3 of this Decree;
 - c. the measures taken to prevent a repeat of accidents with serious injuries, fatal accidents or situations as meant in Article 2.42c, first paragraph, under b;

- d. the manner in which Article 19, paragraph two, of the Act has been complied with if, in the workplace in the extracting industry, more than one employer has work carried out;
 - e. the information which shows that the design, use and maintenance of the workplace in the extracting industry and also the work equipment are safe;
 - f. the measures to restrict and fight fires.
3. In addition to the second paragraph under *d* the employer responsible for the workplace in the extracting industry should coordinate the implementation of all health and safety measures and he should indicate in the health and safety document the aims, the measures and the manner in which this implementation is coordinated.
 4. The health and safety document should be reviewed when there is any relevant change, expansion or conversion of the workplace in the extracting industry.
 5. A copy of the health and safety document must be sent to the Works Council or staff representation body, or failing this, to the interested employees.
 6. The activities should be carried out in accordance with the health and safety document.

Article 2.42a. Work permit

1. When required for the health and safety of the employees, a system of work permits will be applied for the implementation of hazardous activities and for the implementation of normally non-hazardous activities which in combination with other activities may involve serious risks
2. The work permit will be issued by a responsible person before the commencement of the activities and it will indicate which instructions have to be complied with and what precautions must be taken before, during and after the activities.

Article 2.42b. Register of persons

A register will be present at suitable locations mentioning the persons carrying out activities in the opencast mining industry, underground mining industry and the mineral-extracting industry through drilling:

- a. name, first names and gender;
- b. nature, number and copy of a document as meant in Article 1 of the Compulsory Identification Act;
- c. information and data with regard to becoming employed and employment;
- d. the various functions in which they are employed and the dates on which they were employed as such;
- e. dates and nature of medical examinations and medical certificates insofar as they are required under this Decree;
- f. information of the certificates insofar as they are required for the performance of the activities under this Decree and the Mining Decree.

Article 2.42c. Notification of accidents and near-accidents

1. In addition to Article 9, paragraph one, of the Act, the employer must also immediately notify the supervisor designated to this end:
 - a. about all major and unusual events occurring in traffic or transport which have or might have jeopardised safety;
 - b. when safety is threatened in any way or persons are or were in danger of their lives;
 - c. about all incidents which occurred during the use, transport or storage of explosive substances which jeopardised or could have jeopardised safety.
2. Once every month all accidents and other events which jeopardised or could have jeopardised safety

should be reported to the supervisor designated to this end insofar as no reporting took place as meant in the first paragraph.

Section 6A. Extracting industry through drilling

Article 2.42d. Linking provision

Apart from the provisions of Section 6 of this Chapter the provisions of this Section also apply to a workplace in the mineral-extracting industry through drilling.

Article 2.42e. Safety and health protection system

1. For the implementation of the best possible working conditions policy meant in Article 3 of the Act, a health and safety protection system should be present. This system comprises the whole of policy, organisation, planning, implementation, monitoring, evaluation, review and improvement which is used to control health and safety.
2. With respect to the first paragraph detailed provisions can be laid down in a Ministerial Order.

Article 2.42f. Health and safety document

1. Notwithstanding Article 2.42 the health and safety document should demonstrate that all the necessary measures have been taken to protect the health and safety of employees both in their normal situations as well as in emergencies. To this end the document includes the following:
 - a. a specification of the specific risk sources attached to the workplace including any activity at that location which can cause accidents with serious consequences for the health and safety of the employees involved;
 - b. an evaluation of the risks of the specific sources meant under a;
 - c. the evidence that sufficient precautions have been taken to avoid the accidents meant under a, to limit the increase of accidents and to be able to evacuate the workplace in emergencies in an effective and controlled manner;
 - d. the evidence that a health and safety protection system as meant in Article 2.42e is applied that is adequate to comply with the provisions in or pursuant to this Decree with regard to the safety and protection of the health of the employees, both in normal situations as well as in emergencies.
2. With regard to the planning and implementation of all the stages meant in Article 3.2, first paragraph, second sentence, the procedures and implementation provisions stated in the respective health and safety document must be complied with.
3. Should the occasion arise the various employers who are responsible for the various workplaces must cooperate in formulating the health and safety documents meant in Article 2.42 and in preparing the measures necessary to guarantee the health and safety of the employees.
4. With respect to the first, second and third paragraph detailed provisions can be laid down in a Ministerial Order.

Article 2.42g. Safety exercises

Safety exercises must be held from time to time at any workplace which is normally manned, which are aimed at:

- a. training employees who are entrusted with concrete tasks in emergencies whereby emergency equipment has to be used, applied or operated and checking whether they are competent to perform these tasks;
- b. checking all the emergency equipment used during exercises, cleaning it and if necessary re-loading or replacing it and returning all portable equipment which has been used to the location where it is normally stored;

- c. verifying whether the lifeboats are ready for use.

Article 2.42h. Actions in emergencies

1. The employees must be trained to perform actions which have to be carried out in emergencies.
2. On mining locations where employees are staying for an extended time there should be sufficient employees present on the helicopter landing platform during helicopter movements whose task it is to take action in emergencies. These employees should be sufficiently trained to this end.
3. In addition to the first and second paragraph, employees who are working on mining installations must also be trained to perform actions which have to be carried out at a specific workplace. These actions for the respective workplace must be further described in the health and safety document meant in Article 2.42.
4. Employees who are working on mining installations must be trained in the application of survival techniques with due observance of the criteria laid down in the health and safety document meant in Article 2.42.

Article 2.42i. Consultation with and participation by employees

Insofar as the Works Councils Act is not applicable, consultation with and participation by employees will take place in accordance with Article 11 of Directive 89/391/EEC of the Council of the European Communities of 12 June 1989 with regard to the implementation of measures to promote improvement of health and safety of employees at work (OJ EC L 183).

Section 7. Night work

Article 2.43. Occupational health medical examination

1. For the purposes of this Article night work has the meaning given to it in the Working Hours Act.
2. Any employee who is going to carry out night work for the first time should be given the opportunity as an addition to Article 18 of the Act to submit to an occupational health medical examination before commencing this work.

Section 8. Special sectors and special categories of employees

§ 1. Transport

Article 2.44. Exceptions to means of transport

Sections 2 and 7 of this Chapter do not apply to work carried out in or on an aircraft, a seagoing vessel, an inland vessel, a vehicle on a public road or a railway.

§ 2 [Repealed as of 01-07-2012]

Article 2.45. [Repealed as of 01-07-2012]

Chapter 3. Organisation of workplaces

Section 1. General provisions

§ 1. Definitions and applicability

Article 3.1. Concepts

The concepts used in this Chapter have the following meaning:

- a. electrical installation: an assembly of electric equipment, wiring and wiring accessories;
- b. electric equipment: parts or elements of an electrical installation serving to generate, transport and apply electrical energy;
- c. explosive atmosphere: a mixture of air and flammable substances in the form of gases, vapours, mists or dust under atmospheric circumstances in which the combustion after ignition extends to the whole of the non-burnt mixture;
- d. use of electricity: any activity relating to an electrical installation including in any event the construction, putting into or out of operation, operation, repair, conversion, maintenance, inspection and also working close to an electrical installation;
- e. high-voltage: a voltage the value of which with respect to AC voltage is higher than 1000 Volt effective between the phases or 600 Volt effective between a phase and earth and with respect to DC voltage is higher than 1500 Volt between the poles or 900 Volt between one of the poles and earth;
- f. low-voltage: a voltage with a value lower than high voltage.

Article 3.1a. Applicability

The Articles 3.3, first paragraph, 3.4, first paragraph, with regard to the design and the organisation of electrical installations belonging to a building as meant in Article 1, paragraph one under c, of the Housing Act, 3.6, second paragraph, 3.7, fifth paragraph, 3.11, first paragraph, with regard to the rule that floors of workplaces must be free as much as possible of hazardous slopes and moreover as much as possible fixed and stable, and the third paragraph, 3.18, second paragraph, and third paragraph, and 3.24, first paragraph, and second paragraph, first sentence, are not applicable to workplaces in a building as meant in Article 1, paragraph one under c, of the Housing Act.

§ 2. General obligations on the part of the employer

Article 3.1b. Instruction for use

A workplace in a building as meant in Article 1, first paragraph under c, of the Housing Act may only be used if the building complies with the provisions laid down in or pursuant to the Buildings Decree 2012 with regard to the applicable designated use within the sense of that Decree.

Article 3.2. General requirements

1. Workplaces should be safely accessible and able to be safely exited. They should be designed, constructed, equipped, put into operation, used and maintained in such a manner that danger to the health and safety of the employee is avoided as much as possible. In addition, they should be kept clean, free of dust as much as is possible and be kept as tidy as is necessary for health and safety.
2. Regular checks should take place on whether the provisions and measures taken for the protection of employees present in the workplace are still functioning properly.
3. Defects found with respect to the provisions and measures meant in the second paragraph which might affect health or safety, should be remedied as soon as possible.

Article 3.3. Stability and strength

1. Buildings and other structures should consist of proper materials, be of proper construction and should be in such a condition that there is no danger of their wholly or partly collapsing or falling over.
2. The workplace should be organised in such a manner that the objects or substances present do not create a hazard to health or safety by collapsing, shifting, falling or toppling over.

Article 3.4. Electrical installations

1. Electrical installations should be designed, arranged, wired, maintained and marked so as to guarantee as far as possible the safe use of electricity. To this end the necessary provisions and

protective measures should be fitted. In doing so the special requirements which may result from the manner of use, the user circumstances, the external influences to be expected and maintenance activities should be taken into account.

2. In an electrical installation effective measures should be taken against the danger of fire, explosion, direct and indirect contact and too close proximity.
3. Clear diagrams kept up-to-date at all times should be available with respect to each electrical installation as well as all other information required for the safe use of the electrical installation.
4. The third paragraph does not apply to electrical installations of low voltage of a limited scope.

Article 3.5. Electrotechnical, operating and other activities to or close to an electrical installation

1. Electrotechnical activities and operating activities which may create hazards should be carried out by expert, sufficiently trained and competent employees.
2. A space containing a high voltage electrical installation the parts of which are not or insufficiently protected against direct or indirect contact or too close proximity, should only be entered in the presence of a second person having the authority to do so.
3. Activities to or close to an electrical installation should only be carried out if the installation or the part on which or close to which the activities are taking place, has been rendered dead.
4. The employee with the authority to do so should take effective measures to guarantee the safe progress of the activities.
5. The third paragraph does not apply to activities carried out to or close to a low voltage electrical installation, if:
 - a. urgent reasons for carrying out the activities live have been demonstrated;
 - b. explicit instructions have been given for carrying out these activities by the employee having the authority to do so; and
 - c. the installation is also suitable for carrying out these activities live and the employee having the authority to do so has taken effective measures to avoid the hazards associated with these activities.
6. The third paragraph does not apply to activities carried out to or close to a high voltage electrical installation, consisting of:
 - a. taking and discontinuing safety measures including cutting or coiling wires with suitable equipment;
 - b. carrying out measurements and tests; or
 - c. cleaning electrical equipment.
7. Activities consisting of cleaning electrical equipment in a high voltage electrical installation as meant in the sixth paragraph, under c, will only be carried out, if:
 - a. explicit instructions have been given for carrying out these activities by the employee having the authority to do so;
 - b. work equipment, cleaning agents and personal protection equipment are being used that are suitable for these activities, and
 - c. the employees do not have to move into the danger area of the live installation or parts of it with work equipment with which they are in physical contact.

§ 2a. Explosive atmospheres

Article 3.5a. Applicability

This division does not apply to:

- a. areas which are directly used for and during the medical treatment of patients;
- b. the use of gas appliances covered by the Gas Appliances Decree;
- c. the manufacture, processing, use, storage and transport of explosives or chemically instable substances;
- d. opencast mining industry, underground mining industry and the mineral extracting industry through drilling;
- e. the use of means of transport by land, by water or by air with the exception of vehicles intended for use on locations where an explosive atmosphere might occur.

Article 3.5b. Collaboration and coordination

1. For the purposes of Article 19, paragraph two, of the Act the activities are designated which are carried out in workplaces where explosive atmospheres occur or can occur.
2. In addition to Article 19, paragraph two, of the Act, the employer who is responsible for the workplace, meant in the first paragraph, must coordinate the implementation of all health and safety measures.

Article 3.5c. Detailed provisions for risk assessment and evaluation; explosion safety document

1. The hazards in connection with explosive atmospheres and the special risks which might result from this must be assessed in their totality in connection with the risk assessment and evaluation meant in Article 5 of the Act, before the commencement of the work and at any major change, expansion or conversion of the workplace, the working equipment or the work process, and be laid down in writing in an explosion safety document.
2. At the assessment meant in the first paragraph, the following are in any event to be taken into account:
 - a. the probability of preventing explosive atmospheres and their continuation;
 - b. the probability that ignition sources, including electrostatic discharges, are present, become active and actually ignite;
 - c. the installations present, the substances used, the processes and their possible interactions;
 - d. the extent of the consequences to be expected.
3. When making the assessment meant in the first paragraph, areas are also taken into account that are connected with each other via openings or which can be connected to areas where explosive atmospheres might occur.
4. At least the following must be stated in the explosion safety document:
 - a. an identification and assessment of the explosion risks;
 - b. the manner in which the workplaces and working equipment, including the alarm systems, are designed, used or operated and maintained with the required focus on safety.
 - c. which areas are divided into zones as meant in Article 3.5d, paragraph 5;
 - d. the manner in which the measures, meant in Articles 3.5d, 3.5e and 3.5f, are implemented;
 - e. if in workplaces as meant in Article 3.5b, first paragraph, more than one employer has work carried out, the manner in which Article 19, paragraph two, of the Act has been complied with and the aim, the measures and the manner in which the coordination is taking place as meant in Article 3.5b, paragraph two.

Article 3.5d. General preventative measures

1. Effective measures must be taken to prevent the creation of an explosive atmosphere in the workplace.

2. If with a view to the nature of the work, it is not possible to prevent the creation of an explosive atmosphere, the following measures must be taken in the order set out below:
 - a. the ignition of explosive atmospheres must be prevented taking into account electrostatic discharges which might emanate from the employees or the workplace as a load carrier or load producer;
 - b. the harmful consequences of an explosion must be restricted.
3. In addition to the measures meant in the first and the second paragraph, the possibility of the explosion spreading must be restricted.
4. If employees or others could be in danger because of explosive atmospheres, in addition to the first to the third paragraph, the workplace will be organised such that it is possible to work safely and there is appropriate supervision of the work including the use of suitable technical means. The contents and the extent of the supervision depend on the hazards which have emerged from the assessment meant in Article 3.5c, first paragraph.
5. If it has emerged from the assessment meant in Article 3.5c, first paragraph, that explosive atmospheres might arise, the areas where these atmospheres might arise must be divided into danger zones as meant in Annex I to Directive no. 1999/92/EC of the European Parliament and the Council of the European Union of 16 December 1999 (OJ EC 2000, L 23) on minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres (fifteenth individual Directive within the meaning of Article 16, paragraph one, of Directive no. 89/391/EEC).**6.** Danger zones are marked by means of warning signs which comply with the provisions determined in or pursuant to Section 2 of Chapter 8.

Article 3.5e. Measures in danger zones

In the danger zones meant in Article 3.5d, paragraph five, and with regard to installations in areas without any explosion danger which are required for or contribute to the explosion-safe use of installations situated where explosion danger occurs, the following measures must in any event be taken:

- a. released gases, vapours, mists or flammable substance which might create explosion danger, must be removed in an appropriate manner and rendered harmless;
- b. if an explosive atmosphere contains multiple types of inflammable or flammable gases, vapours, mists or substances, in connection with the safety measures the greatest possible risk must be assumed on the basis of the assessment meant in Article 3.5c, first paragraph;
- c. installations, equipment, safety systems and installation material should only be used with due observance of the provisions under e, if it has emerged from the explosion safety document on the basis of the assessment meant in Article 3.5c, first paragraph, that no danger of explosion is associated with their use;
- d. the provisions under c apply accordingly to working equipment and their connecting pieces which do not constitute equipment and safety systems as meant in the Explosion-safe Materials Commodities Act Decree if their incorporation in the installations might give rise to ignition danger;
- e. insofar as the explosion safety document on the basis of the assessment meant in Article 3.5c, first paragraph, has not made other requirements, equipment and safety systems in the danger zones must be used in accordance with the categories as meant in the Explosion-safe Materials Commodities Act Decree and applied according to the following principles:
 - 1°. danger zone 0 or 20: category 1 equipment;
 - 2°. danger zone 1 or 21: category 1 or category 2 equipment;
 - 3°. danger zone 2 or 22: category 1, category 2 or category 3 equipment;
- f. the necessary measures must be taken to prevent the exchange of installation material;
- g. in areas where an explosive atmosphere might arise, working clothes in compliance with Section 1 of Chapter 8 should be made available to employees which will always be worn by the employees during their work;
- h. if a situation arises where an explosion might occur, where necessary the employees must be warned optically or acoustically and be withdrawn;

- i. for the first commissioning of a workplace and at any major change, extension or conversion of the workplace, working equipment or work process where explosive atmospheres might arise, the explosion safety of the overall installation must be checked by an expert in this field.

Article 3.5f. Special measures

Insofar as the necessity to this end has emerged from the assessment meant in Article 3.5c, first paragraph, in addition to Article 3.5e the following measures must be taken:

- a. written instructions must be given with regard to the implementation of the work;
- b. before work starts that might create a hazard, consent in order to perform that work should be given by a person authorised to do so;
- c. when a power failure might cause extra hazards, equipment and safety systems must be maintained during a power failure in a safe operational condition independently of the rest of the installation;
- d. equipment operated automatically and safety systems deviating from the foreseen operating conditions, must be able to be switched off manually without any danger. These interventions must be carried out by authorised employees;
- e. if the emergency stop systems are activated, the energy stored should be removed or isolated as soon as possible and as safely as possible so that it no longer causes a source of danger;
- f. means of escape must be kept available and ready for use so that employees can leave the danger areas quickly and safely.

§ 2b. Atmospheres harmful to health

Article 3.5g. Danger of suffocation, intoxication, poisoning, fire or explosion

1. If it can be assumed that the atmosphere at a location or in an area contains substances to such an extent that this causes a danger of suffocation, intoxication, poisoning, fire or explosion, the employee may only be present at this location or in that area if an investigation shows that the danger is not present.
2. If it appears from the investigation meant in the first paragraph that the hazard of suffocation, intoxication, poisoning, fire or explosion is present, suitable measures should be taken so that the employee can be present at this location or in that area, as meant in the first paragraph, without the dangers.
3. In any event this involves the following:
 - a. a danger of suffocation if the atmosphere contains less than 18 volume percent of oxygen;
 - b. a danger of intoxication or poisoning if the concentration of the respective substances in the atmosphere is more than the limit values referred to in Article 4.3;
 - c. a danger of fire or explosion if the concentration of oxygen in the atmosphere is more than 21 volume percent or the concentration of flammable gases or vapours is more than 10 volume percent of the lower explosion limit.
4. If it is not possible to take the measures meant in the second paragraph and it is necessary to enter the hazardous atmosphere meant in the first paragraph, the employee must be permanently observed and suitable measures must be taken in order to:
 - a. protect this employee against the hazard meant in the second paragraph;
 - b. offer immediate assistance to the employee in a suitable manner, when danger is imminent.

Article 3.5h. Safety on or in tankers

1. Article 3.5g does not apply to the following activities to, on or in tankers of a category designated by Ministerial Order:

- a. cleaning;
 - b. maintaining, repairing or converting;
 - c. dismantling in part or in whole where there is a danger of fire, explosion, poisoning, suffocation or intoxication.
2. The activities mentioned in the first paragraph should be carried out in a safe manner by or under supervision of a person with sufficient expertise.
 3. A Ministerial Order will indicate activities which should only be carried out if a gas expert has assessed in advance the health and safety hazards for the employees and has issued a certificate in compliance with a model to be determined by a Ministerial Order.
 4. A gas expert as meant in the third paragraph should be in possession of a certificate of competence for a professional gas expert issued by Our Minister or a certifying institution.
 5. The certificate of competence for a professional gas expert or a copy of this should be present at the workplace and should be shown to the supervisor on request.
 6. Detailed provisions will be laid down in a Ministerial Order with regard to the activities meant in the first paragraph.

§ 3. Provisions for emergency situations

Article 3.6. Escape routes and emergency exits

1. If a situation occurs constituting a direct hazard to health or safety, effective measures should have been taken in order to enable the employee to bring himself quickly to safety via the shortest route.
2. The number, place and dimensions of the escape routes and emergency exits intended for this purpose depend on the use, equipment and dimensions of the workplaces and also on the maximum number of employees and other persons who might be present in these places.

Article 3.7. Safe use of escape routes and emergency exits

1. Escape routes and emergency exits should be free of obstacles.
2. Emergency exits should be able to be opened at all times.
3. The doors of emergency exits and doors on escape routes should be easily openable and open outwards.
4. Sliding or revolving doors should not be used as emergency exits.
5. Escape routes and emergency exits which would be hard to see if the lighting failed, should be supplied with adequate emergency lighting.
6. Escape routes, doors and gates on the escape routes as well as the emergency exits should be marked by signs that comply with the provisions set out in or pursuant to Section 2 of Chapter 8.

Article 3.8. Fire alarm and fire fighting

1. In addition to Article 15 of the Act, sufficient and suitable equipment for fighting fires should be present in workplaces depending on the nature of the work carried out there, the hazards associated with it and the maximum number of employees and other persons located there.
2. In addition to the first paragraph, fire detectors and alarm systems should be present if necessary.
3. Non-automatic equipment for fire fighting should be easily accessible and easy to operate.

4. Non-automatic fire fighting equipment should be provided with a sign that complies with the provisions set out in or pursuant to Section 2 of Chapter 8. The sign should be durable and fitted in the proper location.

Article 3.9. Emergency lighting

Workplaces where employees would be exposed to special hazards if the artificial lighting failed, should be provided with adequate emergency lighting. If emergency lighting is not possible, the employees should have individual lighting at their disposal.

Article 3.10. Rescue of drowning persons

In workplaces where there is a danger of drowning, this danger should be avoided as much as possible and effective equipment for rescuing drowning persons should be available in a properly visible location.

§ 4. Fitting-out requirements

Article 3.11. Floors, walls and ceilings of workplaces

1. Floors of workplaces should be as free as possible from unevenness and dangerous slopes and should also be as fixed, stable and non-slippery as possible.
2. The surfaces of floors, walls and ceilings of workplaces should be such that for purposes of hygiene they can be cleaned and maintained in the workplace.
3. Enclosed spaces where work is carried out, should have sufficient thermal insulation, taking into account the nature of the activities and the physical load.
4. So far as is possible in connection with the nature of the workplace, transparent or translucent walls in workplaces should be:
 - a. clearly marked and made of safety material, or
 - b. fitted or screened off in such a manner that the employees cannot injure themselves.

Article 3.12.

Windows and overhead lights in spaces

1. If windows, overhead lights and provisions for ventilation can be opened or closed:
 - a. this should take place in a safe manner;
 - b. it should be possible to adjust and secure them in a safe manner; and
 - c. they should not cause a hazard when open.
2. It should be possible to clean windows and overhead lights without any hazard.

Article 3.13. Doors, movable gates and other passageways

1. The positioning, number and dimensions of doors, movable gates and other passageways as well as the materials they are made of, should be in line with the nature and use of the workplace.
2. Transparent doors should be fitted with a marker at eye-level.
3. Depending on the nature of the workplace and the work being carried out there, swinging doors should be transparent or fitted with transparent panels.
4. If doors or other passageways have transparent or translucent surfaces, suitable measures should be taken to prevent employees being injured by unintentional contact with these surfaces.
5. Doors and movable gates which can derail out of or away from their guide rails should be

safeguarded against being lifted out, derauling or falling down.

6. Automatic doors and gates should function in such a manner that they do not create any hazard. They should be equipped with easily recognisable protection preventing employees from being injured.
7. Automatic doors and gates should be able to be opened manually during a power failure unless they open automatically at such times.
8. There should be separate passageways for pedestrians in the immediate proximity of doors, movable gates or other passageways which are mainly intended for the traffic of vehicles or other means of transport, unless the way through is safe for pedestrians.
9. The passageways meant in paragraph 8 for pedestrians should be clearly and visibly marked and free from obstacles.
10. Chains or similar provisions used to prevent entry to a certain space must be clearly visible and suitably provided with no-entry or warning signs.

Article 3.14. Connecting roads

1. The connecting roads in the workplace should be situated and fitted out in such a manner that they can be used easily, safely and in accordance with their intended use by pedestrians, vehicles or other means of transport.
2. Employees carrying out activities close to connecting roads should be safeguarded from being exposed to hazards.
3. The dimensions of the connecting roads should be to the number of users and the nature of the work carried out in the business or the establishment.
4. If vehicles or other means of transport are being used on the connecting roads - insofar as this does not involve public roads - the necessary traffic rules should be determined.
5. In the cases mentioned in the fourth paragraph, a safe space for pedestrians should also be guaranteed or other effective measures taken to protect pedestrians.
6. The connecting roads intended for vehicles or other means of transport should be situated at a sufficient distance from other connecting roads in the workplace.
7. Insofar as required by the use or the fitting-out of the workplace, the connecting roads should be clearly defined.

Article 3.15. Marking of hazardous areas

1. Areas where there is a danger because of the nature of the work, including a danger of falling or of objects falling or where obstacles which cannot be removed create a hazard for the safety when moving vehicles or persons, should be clearly marked by signs which comply with the provisions set out in or pursuant to Section 2 of Chapter 8.
2. Only employees who in their professional capacity or on account of their job have to enter the areas meant in paragraph one should be admitted.

Article 3.16. Preventing danger of falling

1. Wherever possible when carrying out work where there is a danger of falling, safe scaffolding, frameworks, platforms or work floors should be erected or the hazard should be averted by mounting effective screens, railings or other such provisions.

2. There is a danger of falling in any event if there are high-risk situations, openings in floors or if there is a danger of falling down at least 2.5 metres.
3. Fencing and railings are regarded as effective if they provide protection from falling up to at least 1 meter above the work surface, or comply with the provisions for floor separation of or pursuant to the 2003 Building Decree.
4. The first paragraph does not apply to work carried out under circumstances in which the use of ladders or staircases is permitted as meant in Article 7.23, paragraph two.
5. If the provisions meant in paragraph one cannot be or can only be partly erected or if erecting or removing them would involve greater hazards than the work for which they serve as protection, then in order to eliminate the danger, sufficiently strong and sufficiently large safety nets should be attached to suitable places in a suitable manner or suitable safety belts with safety lines of sufficient strength should be used or other technical means should be applied which at least give the same extent of protection for the work as is meant in the first paragraph. In this respect, measures aimed at collective protection are preferable to measures aimed at individual protection.

Article 3.17. Preventing danger caused by objects, products, liquids or gases

The danger of being struck or hit by objects, products or parts thereof or by liquids or gases, or the danger of becoming trapped between objects, products or parts thereof, must be prevented and, if this is not possible, be limited as much as possible. Article 3.16, fifth paragraph, closing sentence, applies.

Article 3.18. Specific measures for escalators, moving walkways and loading platforms

1. Escalators and moving walkways should function safely and should be equipped with the necessary safety provisions, including easily recognisable and accessible emergency stop provisions.
2. Loading platforms and loading slopes should be geared to the dimensions of the loads being transported. They should have at least one exit.

Article 3.19. Dimensions and air volumes of spaces; room to move on the workplace

1. The dimensions and the air volume of the workplace should be such that the employee is able to carry out his work without any danger to his health or safety.
2. The dimensions of the workplace should be such that the employee has sufficient room to move when carrying out his work.
3. If the second paragraph cannot be complied with because of the nature of the work, another open or closed area close by with sufficient room to move should be available for the respective employees.

§ 5. Recreation rooms and other provisions

Article 3.20. Recreation rooms

An easily accessible area should be available in the business or the establishment or in its direct vicinity where the employees can spend their breaks. This area should be suitable for this purpose and also - depending on the number of employees - sufficiently spacious in size and equipped with sufficient tables and chairs.

Article 3.21. Night rooms

For employees who usually stay over in the business or the establishment in which they are working during the time between the end and the beginning of their daily working hours, a night room should be available. A night room should be fitted out adequately and should only be intended for persons of the

same sex.

Article 3.22. Changing rooms

1. Each employee should have a place available for hanging his clothes.
2. For employees who have to wear special working clothes, effective and sufficiently spacious changing rooms provided with chairs or benches and separated according to the sexes should be available; these spaces should be situated as close as possible to the open or closed spaces where work is usually carried out. If necessary, it should be possible to dry wet working clothes.
3. It should be possible to keep clothing not worn by the employees in the course of their work in the changing room in a suitable manner and locked away.
4. According to the circumstances, it should be possible to retain special working clothes and employees' personal clothing separately, in a suitable manner and locked away.

Article 3.23. Washing facilities and shower rooms

1. If employees are exposed to dirt or dust, a wash room with a sufficient number of washbasins should be present. The washbasins should be placed functionally and separated according to the sexes; they should have cold and if necessary hot running water.
2. If the employees are exposed to dirt, dust or high temperatures to such an extent that the necessary cleaning of their bodies involves more than washing their hands and face or because of the nature of their work or the care of their health, there should also be a shower room with a sufficient number of showers. The shower room must have sufficient room, be effectively fitted out and separated according to the sexes; the showers must have cold and hot running water.
3. If the shower rooms or washing facilities and the changing rooms are not situated in the same room, it should be easy to move between them without going outside.

Article 3.24. Toilets and washbasins

1. In a business or establishment there should be a sufficient number of toilets present close to the spaces where employees carry out their activities.
2. Sufficient washbasins should be present in or in the immediate vicinity of the areas in which the toilets are situated.
3. The toilets or the use of the toilets must be separated according to the sexes.

Article 3.25. First-aid stations

1. If the nature of the work or the associated hazards make it necessary, in addition to Article 15 of the Act, there should be sufficient first aid stations available in the business or establishment.
2. Clearly visible instructions for first aid for accidents should be present in the first aid stations.
3. An alarm number should be clearly visible in the first aid station.
4. The first aid stations should be provided with the necessary first aid equipment.
5. First aid stations should be easily accessible with stretchers.
6. First aid stations and first aid equipment should be supplied with a sign that complies with the provisions set out in or pursuant to Section 2 of Chapter 8.

Section 2. Additional provisions for construction sites

Article 3.26. Linking provision

Apart from the provisions of Section 1 the provisions of this Section also apply to construction sites.

Article 3.27. General requirements

1. A construction site should be marked and defined.
2. Sufficient drinking water or other soft drinks should be available on the construction site.
3. If necessary, facilities for preparing meals should be available on construction sites.

Article 3.28. Stability and strength

1. Workplaces on a construction site not situated at ground level, should be stable and strong, taking into account the number of employees present on them, the maximum load and the load spread as well as external influences. If necessary, suitable fasteners should be applied to obtain stability.
2. The stability and strength should be properly checked on a regular basis and in any event after any relevant change of the height or depth of the workplaces meant in paragraph one.

Article 3.29. Electrical installations and wiring

1. Electrical installations already present on the construction site before the activities commence, should be identified, checked and clearly marked.
2. Where possible overhead electricity cables should be diverted outside the construction site or rendered dead. If this is not possible, fencing or warning signs should be positioned.
3. If vehicles have to drive underneath electricity cables, protective devices should be attached under the cables.
4. Underground electricity cables, conduits for other distribution systems and cables should be identified before commencement of the earth-moving activities.
5. As far as is possible suitable measures should be taken to avoid hazards for employees associated with damage to the conduits and cables meant in paragraph four.

Article 3.30. Construction pits, tunnels, excavations and other underground activities and earth-moving activities

1. Suitable shoring or slope provisions should be applied in a construction pit, a tunnel, at excavations or other underground activities in order to prevent collapse or flooding.
2. With respect to earth-moving activities the excavated earth, the materials used and the vehicles used in this respect should be kept at a safe distance from the excavation. If necessary, suitable fencing should be placed around the excavation.

Article 3.31. Metal and concrete constructions, shuttering and heavy prefabricated elements

1. Metal and concrete constructions as well as parts of them, shuttering, prefabricated elements or temporary shoring and propping should only be erected or dismantled under the supervision of a person specially designated to this end.
2. Shuttering, temporary shoring and propping should be able to bear the forces to which they are exposed without any danger to employees.

Section 3. Additional provisions for opencast mining industry, underground mining industry or extracting industry by drilling

Article 3.32. Linking provision and applicability

1. In addition to the provisions of Section 1, with the exception of division 2a of that Section, the provisions of this Section also apply to a workplace in the extracting industry.
2. This Section does not apply to work carried out in the opencast mining industry by dredging.

Article 3.33. Written information

For each workplace in the extracting industry written instructions should be drawn up containing the rules to be complied with in order to guarantee the health and safety of the employees as well as the safe use of work equipment. These instructions should also contain indications how to use emergency equipment and the action to be taken in emergencies.

Article 3.34. Danger of explosion

The measures aimed at preventing the danger of explosion referred to in Article 3.5g, second paragraph, are included in the health and safety document referred to in Article 2.42, second paragraph.

Article 3.35. Resuscitation equipment

1. In addition to Article 15 of the Act, suitable resuscitation equipment should be present in zones where there is a danger of suffocation, intoxication or poisoning.
2. There should be sufficient employees present in the workplace in the extracting industry who are able to operate the equipment mentioned in the first paragraph.
3. The resuscitation equipment should be suitably maintained and stored.

Article 3.36 [Repealed as of 01/01/2007]

Section 3A. Additional provisions for opencast mining industry

Article 3.36a. Linking provision

In addition to the provisions of Section 3 of this Chapter the provisions of this Section also apply to a workplace in the opencast mining industry.

Article 3.37. Preventing instability

1. Before commencement of activities involving excavation or reclamation of faces above work sites or traffic routes, a check should always be carried out as to whether there are any unstable masses or rocks. If necessary, loose blocks of stone should be removed.
2. Always look out for any instability which might be created when reclaiming faces or stone heaps.

Section 3B. Additional provisions for underground mining industries

Article 3.37a. Linking provision

In addition to the provisions of Section 3 of this Chapter the provisions of this Section also apply to a workplace in the underground mining industry.

Article 3.37b. Ground plans and signposting

1. Ground plans on a scale enabling a clear representation must be made and regularly updated, indicating the galleries and exploitation activities and all known factors which might affect the exploitation and its safety. The ground plans must be present at the workplace and must be shown to the supervisor on request. The ground plans should be easily accessible and kept so long as this is necessary with a view to safety.
2. There should be signposting in the galleries, so that the employees can orient themselves easily.

Article 3.37c. Exits

1. Each underground exploitation should be connected to the surface via at least two separate exits. These exits should be solidly constructed and easily accessible by the employees carrying out underground activities.
2. If a special physical effort is required for the use of these exits, they should be fitted with mechanical means of transport for the employees.

Article 3.37d. Transport equipment

1. Transport equipment must be installed, used and maintained such that the health and safety is guaranteed of the employees who operate or use it or who stay close to it.
2. With regard to the transport of employees with mechanical means of transport, suitable provisions and special written instructions should be provided.

Article 3.37e. Support and stability

1. As soon as possible after extracting, supports should be applied unless the site is so stable that it is not necessary for the safety of the employees. These supports must be applied according to diagrams and written instructions.
2. All areas accessible to employees must be reviewed regularly as to the stability of the site.
3. During the maintenance operations of the supports, the findings of the review meant in the second paragraph must be taken into account.

Article 3.37f. Caving in and water breach

1. In areas where caving in or water breaches might occur, an extracting programme has to be formulated and implemented which is aimed at as safe a work system as possible and the protection of the employees.
2. Measures must be taken to be able to recognise the areas meant in the first paragraph, to protect the employees working in or close to those areas and to control the risks.

Article 3.37g. Preventing fire and a rise in temperature

1. Measures must be taken to prevent or identify any rises in temperature at an early stage.
2. The use of flammable materials must be restricted to the strictly necessary minimum.
3. The hydraulic liquids to be used must insofar as this is possible be low-flammable and must comply with specifications and testing conditions with regard to their flammability as well as to hygiene criteria. If the hydraulic liquids to be used do not comply with the requirements set out in the first sentence, additional measures must be taken.

Article 3.37h. Lighting

In addition to Article 3.9 every employee must have a suitable lamp for the work at his disposal.

Article 3.37i. Attendance check

The work must be organised such that it can be determined at any time who is underground.

Section 3C. Additional provisions for the extracting industry through drilling

Article 3.37j. Linking provision

Apart from the provisions of Section 3 of this Chapter the provisions of this Section also apply to a workplace in the mineral-extracting industry through drilling.

Article 3.37k. Requirements for the organisation of mining installations

1. In addition to Articles 3.2 and 3.3 mining installations must be designed, constructed, fitted out, operated, checked and maintained such that they can withstand the environmental forces to be expected. They must be of a construction and strength geared to the use to be made of it.
2. If necessary fire barriers are to be fitted on mining installations with a view to separate areas with a fire risk.

Article 3.37l [Repealed as of 01/01/01/01/2007]

Article 3.37m. Maintenance of safety equipment

Appropriate safety equipment must at all times be ready for use and must be kept in a proper condition. During maintenance thereof the activities carried out must be properly taken into account.

Article 3.37n. Emergency exits

1. Living quarters and accommodation areas at mining installations must have at least two separate emergency exits on each level which are situated as far away as possible from each other and should exit to a safe area, a safe muster station or a safe evacuation station.
2. Contrary to Article 3.7, fourth paragraph, emergency exits at mining installations must be provided with doors which can easily be opened outwards or if this is not possible with sliding doors.

Article 3.37o.

Repealed as of 28/12/2009.

Article 3.37p. Danger zones

1. Workplaces where danger zones occur because of the nature of the work, including the danger of falling or the danger of objects falling, must be fitted out as much as possible with provisions preventing employees having access to these zones without consent.
2. Suitable measures should be taken to protect the employees who are allowed to access the danger zones.

Article 3.37q. Remote control in emergencies

1. If this is required for the health and safety of the employees, in emergencies certain equipment should be remotely operated from suitable locations.
2. The equipment meant in the first paragraph includes systems for insulating and blowing off pits,

installations and pipelines.

3. For the purposes of remote control meant in the first paragraph there should be control rooms at suitable locations which can be used in emergencies, if necessary including control rooms at safe muster stations and at evacuation stations.
4. The equipment meant in the first paragraph must at least include systems for ventilation, for disconnecting equipment which might cause ignition in emergencies, for preventing flammable liquids and gases escaping, for fire protection and pit monitoring.

Article 3.37r. Communication systems

1. if required for the health and safety of employees, each manned workplace must be fitted with:
 - a. an audiovisual system via which, if necessary, an emergency alarm can be sent to each manned part of the workplace;
 - b. a loudspeaker system which can clearly be heard in all parts of the installation where employees are often present;
 - c. a system via which the connection with the mainland and the emergency services can be maintained.
2. On mining installations the systems meant in the first paragraph must remain operational in emergencies. The loudspeaker system must be supplemented by communication systems which do not depend on vulnerable power supply installations.
3. The provisions for raising the alarm must be fitted at appropriate locations.
4. If employees are present at workplaces which are normally not manned by employees, a suitable communication system should be in place.

Article 3.37s. Muster stations and muster list

1. If required for the health and safety of employees, muster stations must be indicated, a muster list must be maintained and the necessary measures to this end should be taken.
2. Suitable measures must be taken in order to:
 - a. protect the evacuation stations and the safe muster stations against heat and smoke and as much as possible against the consequences of explosions;
 - b. maintain the escape routes to and from the evacuation stations and muster stations at all times of use;
 - c. keep the evacuation stations and the safe muster stations easily accessible from the accommodation areas and the work areas.
3. The measures meant in the second paragraph must be such that they offer protection to the employees for long enough to be able to organise and implement in all safety, if necessary, an evacuation and rescue operation.
4. If required for the health and safety of the employees, one of the protected areas meant in the first paragraph must be provided with remote operating systems for emergencies as meant in Article 3.37q and a communication system as meant in Article 3.37r, first paragraph under c.
5. A list for each safe muster station at a mining installation must be formulated, which list is maintained and posted at this station with the names of the employees for whom that muster station is intended.
6. A list with the names of the employees who have special tasks in emergencies, must be formulated and maintained and posted at suitable places. The names of these employees must also be entered in the written instructions meant in Article 3.33.

Article 3.37t. Rescue equipment

1. In emergencies at mining installations there should be sufficiently suitable means for rescue, evacuation and for direct escape to the sea available for immediate use.
2. If evacuation of employees must take place along difficult escape routes or via places where it is or might not be possible to breathe the air, personal rescue equipment must be available at the workplace for the employees for immediate use.
3. Personal rescue equipment as meant in the first paragraph must comply with the following provisions:
 - a. it must be functional and if necessary equipped with provisions to be able to survive long enough;
 - b. it should be present in sufficient numbers in order to be able to evacuate all the employees who might be at the installation;
 - c. the type must be geared to the workplace;
 - d. it must be manufactured of reliable materials taking into account the rescue function and the circumstances in which it might be used or in which it is kept ready for use; and
 - e. it must be of a colour which is striking when used and be fitted with provisions with which the user can attract the attention of the rescuers.
4. The material that is necessary when in the event of an accident transport is taking place via a helicopter, must be stored ready for use in the immediate vicinity of the helicopter landing platform.

Article 3.37u. Protection of emergency systems

At mining installations fire detection and fire protection systems, facilities for fire-extinguishing or fire-fighting and alarm systems must be protected from accidents such that their functions remain operational in emergencies. If necessary such systems must be fitted in duplicate.

Article 3.37v. Emergency plan

1. An emergency plan must be drawn up in the event that someone falls overboard or the workplace has to be evacuated.
2. The emergency plan which is based on the health and safety document meant in Article 2.42 must provide the use of auxiliary vessels and helicopters and must contain criteria for their capacity and their response time. The required response time must be stated in the health and safety document of each installation.
3. The auxiliary vessels must be functionally designed and fitted out and meet the requirements in connection with evacuation and rescue.
4. With respect to the first to the third paragraph detailed provisions can be laid down in a Ministerial Order.

Article 3.37w. Accommodation areas

1. In addition to Article 3.21, the necessary accommodation areas must be provided when required by the nature, extent and the duration of the activities at an mining installation.
2. Piping which in the event of leaks can cause a direct hazard to health, must be kept outside the accommodation and the passageways connected to it. This accommodation:
 - a. must be sufficiently protected against the consequences of explosions, ingress of smoke and gas and fire breaking out or spreading as described in the health and safety document meant in Article 2.42;
 - b. must be protected against weather conditions and against nuisance caused by noise and bad smells and the development of flue gases from other areas which might jeopardise health;
 - c. must not be in direct connection with enclosed spaces in which machines, boilers, tanks, pressure

- vessels or the like are installed;
 - d. must be separated from any workplace and be situated outside danger zones;
 - e. insofar as sleeping accommodation is involved this must not be in direct connection with recreation rooms nor with areas for the preparation and storage of food.
3. The accommodation areas must be provided with sufficient beds or bunks taking into account the number of employees which according to expectations might sleep at the installation. A bedroom should not have more than two beds.
 4. Each accommodation area should have sufficient room to store clothes.

Article 3.37x [Repealed as of 01/01/2007]

Article 3.37y. Safety and stability

During the erection of a mining installation all the necessary measures must be taken to guarantee the health and safety of the employees.

Section 4 [Repealed as of 01/01/2007]

Article 3.38 [Repealed as of 01/01/2007]

Article 3.39 [Repealed as of 01/01/2007]

Article 3.40 [Repealed as of 01/01/2007]

Section 5. Special sectors and special categories of employees

§ 1. Education

Article 3.41. Recreation rooms, pupils and students

Article 3.20 does not apply to pupils or students in educational institutions.

§ 2. Transport

Article 3.42. Exceptions to means of transport

1. Articles 3.4, 3.5, 3.7, fifth paragraph, do not apply to aircraft for which a Dutch or a comparable certificate of airworthiness has been issued before 1 January 1997 unless compliance with this may reasonably be required.
2. Articles 3.7, fifth paragraph, 3.20, 3.22, 3.23 and 3.24 do not apply to seagoing vessels and inland vessels constructed before 1 January 1994 unless compliance with this may reasonably be required.
3. The date of manufacture of a seagoing vessel is determined on the basis of the provisions laid down in this respect in Article 2 of the Ships Decree 2004 or, where a seagoing fishing vessel is concerned, in the Fishing Vessels Decree or the Fishing Vessels Decree 2002.
4. Article 3.7, fifth paragraph, does not apply to vehicles on a public road or railway constructed before 1 January 1994 unless compliance with this may reasonably be required.
5. Articles 3.4, 3.5 and 3.7, fifth paragraph, do not apply to the rolling stock present in businesses or

establishments of railway enterprises.

6. Articles 3.20 up to and including 3.25 do not apply to aircraft.
7. Articles 3.4, 3.5, 3.7, third and fourth paragraph, 3.21, second sentence, and 3.25 do not apply to seagoing vessels and inland vessels.
8. Articles 3.20 to 3.25 do not apply to vehicles on a public road or a railway.
9. Article 3.5h does not apply to tankers located outside the Netherlands.

§ 3. Custodial institutions

Article 3.43. Changing rooms and some other provisions

Articles 3.20 to 3.25 do not apply to workplaces in custodial institutions which were in operation as such before 1 September 1990, insofar as compliance with this cannot reasonably be required.

Article 3.44. Escape routes and emergency exits

Articles 3.6 and 3.7 apply to work carried out in custodial institutions by judicial personnel, prisoners or young persons insofar as the order, security or the proper course of events in the custodial institution or the undisturbed implementation of the deprivation of liberty or other restrictions imposed under any law by the authorities having the power to do so shall not be violated. In this context technical and organisational measures should in any event be taken such that the judicial personnel, prisoners or young persons are able to get themselves to safety.

§ 4. Young persons

Article 3.45. Linking provision

In addition to the provisions set out in or pursuant to this Chapter the provisions and prohibitions mentioned in this division also apply to young employees.

Article 3.46. Expert supervision

Article 1.37, second paragraph, applies accordingly to young employees who:

- a. carry out work where there is a danger of collapse;
- b. carry out work to, with or in close proximity to high voltage installations as meant in Article 3.1.

§ 5. Pregnant and breast-feeding employees

Article 3.47. Linking provision

In addition to this Chapter the provisions set out in this division also apply to pregnant and breast-feeding employees.

Article 3.48. Resting rooms

A suitable, lockable, enclosed space should be available for pregnant and breast-feeding employees in which there is an opportunity to take a rest or one can be made immediately available. In such a space a proper, folding or non- folding bed or a suitable couch should be available.

Chapter 4. Dangerous substances and biological agents

Section 1. Dangerous substances

§ 1. Definitions and applicability

Article 4.1. Definitions

In this Chapter and the provisions based on it the following concepts have the following meaning:

- a. dangerous substances: substances, mixtures or solutions of substances to which employees are or can be exposed at work and which due to the characteristics of or circumstances under which these substances, mixtures or solutions occur, may jeopardise health or safety;
- b. limit value:
 - 1°. the limit of the concentration or the time-weighted average of the concentration for a dangerous substance in the individual breathing zone of an employee during a specified reference period;
 - 2°. the limit of the concentration in the suitable biological medium of a dangerous substance, its metabolites or an indicator of the effect of the respective substance during a specified reference period;
- c. unintended event: a sudden situation, accident, event or emergency causing a danger to the health and safety of the employee or his environment and which considering the substances, processes and measures applied was not foreseen.

Article 4.1a. Applicability

1. Articles 4.1c, first paragraph under h, 4.3, 4.4 and 4.10a, fifth paragraph are not applicable to carcinogenic or mutagenic substances and carcinogenic processes as meant in Section 2 of this Chapter and to asbestos products or those containing asbestos as meant in Section 5 of this Chapter.
2. Article 4.7 is not applicable to businesses, establishments or parts thereof to which the Major Accidents (Risks) Decree 1999 or Section 2 of Chapter 2 is applicable.
3. Article 4.4 does not apply to white lead as meant in Article 4.61b.
4. Article 4.10d does not apply to asbestos products or those containing asbestos as meant in Section 5 of this Chapter.

§ 2. Duty of care, measures and detailed provisions for risk assessment and evaluation

Article 4.1b. The employer's duty of care

1. In all the cases in which employees are or can be exposed to dangerous substances, the employer should arrange for suitable protection of the employee's health and safety.
2. The provisions set out in the first paragraph are complied with if:
 - a. in connection with the risk assessment and evaluation meant in Article 5 of the Act, the nature, extent and duration of the exposure has been assessed in accordance with Article 4.2;
 - b. effective measures have been taken to prevent or restrict the exposure in accordance with Articles 4.1c and 4.4 or in accordance with Articles 4.17, 4.18 and 4.19;
 - c. preventative measures have been taken to prevent unintended events in accordance with Article 4.6.

Article 4.1c. Restriction of exposure; general preventative measures

1. In all cases in which work is carried out whereby employees are or can be exposed to dangerous substances, in connection with Article 3 of the Act, the exposure of employees to dangerous substances must be prevented or kept as low as possible by:
 - a. the design and organisation of the work systems on the workplace;

- b. making use of adequate means of work;
 - c. making use of adequate provisions in carrying out repair or maintenance activities;
 - d. reducing as much as possible the number of employees that is or can be exposed;
 - e. keeping the extent and duration of the exposure as low as possible;
 - f. preventing or minimising skin contact by wearing effective personal protective equipment during potential exposure to a simple or compound substance:
 - 1° that complies with the classification criteria for substances with an effect on the skin or eyes, including the classification for substances causing skin cancer, according to Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances. (OJ EC 1967, 196) or Directive 1999/45/EC of the European Parliament and of the Council of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations OJ EC 1999, L 200);
 - 2° within the meaning of Article 4.3, first paragraph, or Article 4.16, first paragraph, stating that the substance can be absorbed by the skin;
 - g. observing the highest possible care, tidiness and cleanliness;
 - h. limiting as much as possible the quantity of dangerous substances at the workplace;
 - i. introducing suitable working methods including arrangements for the safe treatment, storage and transport at the workplace of dangerous substances and of waste materials containing dangerous substances;
 - j. only having work carried out by personnel having such a physical and mental condition and having such a basic knowledge in the field of this work that they are sufficiently able to ascertain and prevent the associated hazards;
 - k. making sure that no smoking, eating, drinking, sleeping or storage of food takes place at locations where dangerous substances are present.
2. The measures meant in the first paragraph must be in accordance with the latest science and technology.

Article 4.1d Limitation of exposure: labelling in the workplace

1. In all cases in which work is performed in which employees are or could be exposed to dangerous substances, the exposure of employees to dangerous substances is prevented or minimised in connection with Article 3 of the Act, by stating in a striking and clearly legible manner on the packaging of the dangerous substance:
 - a. the official name of the dangerous substance and the relevant dangerous components; and
 - b. the danger symbols, names of the risks and the warning phrases.
2. By way of departure from the first paragraph, all mandatory signs need not be applied to laboratory equipment used for continually changing chemicals. If this equipment is used only for short actions, no signs are mandatory. If this equipment is used for purposes other than short actions, the following must be shown on the equipment in a striking and clearly legible manner:
 - a. for a simple substance: the official name of the dangerous substance;
 - b. for a compound substance: the official name or names of the relevant dangerous components.
3. In the case of storage of dangerous substances in larger quantities in special storage areas, the requirements of the first paragraph are met if the mandatory signs for multiple identical packaging is applied through one striking and clearly legible label. The signs must be applied in such a manner that it is clear at all times for each individually stored package that the signs

apply. If dangerous substances are stored solely for traders, application of the statutory signs on delivery in the Netherlands will suffice.

4. In the case of shipment and loading and unloading of dangerous substances, compliance with the first paragraph is achieved if the carriers and the loaders and unloaders have the information that should be shown on the label pursuant to the provisions of the Environmental Management Act available on location during their work.
5. To the extent that the Carriage of Dangerous Goods Act and the Transportation of Crop Protection Products and Biocides Act apply, the first and second paragraphs do not apply.
6. Rules for the implementation of the third, second or third paragraph may be imposed by Ministerial Regulation.

Article 4.2. Detailed provisions for risk assessment and evaluation, assessment

1. If employees are or could be exposed to dangerous substances, regardless as to whether actual work is or will be carried out with these substances, the nature, extent and duration of this exposure should be assessed in connection with the risk assessment and evaluation meant in Article 5 of the Act, in order to determine the hazards for the employees.
2. With regard to the nature of the exposure it should in any event be determined to which dangerous substances the employees are or could be exposed, what hazards are associated with these substances, in what situations exposure could occur and in what manner exposure could take place.
3. With regard to the extent of the exposure to dangerous substances, the level of the exposure should in any event be determined.
4. In order to effectively determine the exposure level, suitable, normalised measuring methods must be used or other measuring methods or quantitative evaluation measures suitable for the purpose.
5. At the assessment meant in the first paragraph, the following aspects must in any event be taken into account:
 - a. the information about the health and safety which has to be provided by the supplier of a dangerous substance in or pursuant to legal provisions as well as the additional information of the supplier necessary for the risk assessment or from other easily accessible sources;
 - b. the circumstances during the activities in which dangerous substances are involved including the quantity of dangerous substances to which the employees are or can be exposed;
 - c. the reasonably foreseeable events which may lead to a considerable increase in the extent of the exposure even when preventative measures have been taken;
 - d. the effectiveness of the preventative measures taken or to be taken;
 - e. insofar as this is applicable, the results of the occupational health medical examinations meant in Articles 4.10a and 4.10b.
6. If various dangerous substances are involved, the assessment meant in the first paragraph must be based on the risk created by those substances in combination.
7. The extent of exposure meant in the first paragraph must be reviewed with the limit value determined for the respective substance in accordance with the fourth paragraph.
8. The assessment meant in the first paragraph must be regularly reviewed, in any event if new activities are started up in which dangerous substance are involved and moreover when changed circumstances or the results of the occupational health medical examinations meant in Articles 4.10a and 4.10b give rise to it.
9. Detailed provisions with respect to this Article can be laid down in a Ministerial Order.

Article 4.2a. Detailed provisions for risk assessment and evaluation, additional registration

If in connection with the nature of the activities carried out at the workplace, dangerous substances usually occur which are classified in or pursuant to the Environmental Management Act into the category «poisonous for procreation», referred to in Article 9.2.3.1, paragraph two under n, of that Act, as well as substances as meant in Directive no. 67/548/EEC of the Council of the European Economic Community of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances (OJ EC L 196) which have to be labelled with the warning sentence R64 in accordance with the criteria in division 3.2.8 of Annex VI of this directive, the following information with regard to those substances must in addition to Article 4.2 be mentioned in the risk assessment and evaluation meant in Article 5 of the Act:

- a. the quantity of the substance which is usually manufactured or used or which is usually present in connection with storage each year;
- b. the number of employees usually working in the workplace where the substance is usually present;
- c. the form of the work usually carried out with the substance;

§ 3. Limit values, workplace hygiene strategy and ventilation

Article 4.3. Limit values

1. Limit values will be determined in a Ministerial Order with regard to the dangerous substances indicated in that Order.
2. If no statutory limit value has been determined for a certain dangerous substance, the employer will determine a limit value for that substance. This limit value must be determined at such a level that the health of the employee cannot be harmed.
3. When a limit value has been exceeded, suitable measures should be taken immediately to reduce the concentration below this value with due observance of Article 4.4.
4. So long as measures as meant in paragraph three have not yet been fully implemented or have not resulted in effective protection, the work may only be continued if suitable measures are taken to prevent damage to the employees' health.

Article 4.4. Workplace hygiene strategy

1. Insofar as it appears from the results of the assessment meant in Article 4.2 that there is a danger to the health or safety of the employees, suitable measures must be taken to prevent the employees being exposed in the course of their work to dangerous substances to such an extent that their safety can be jeopardised or that their health might be impaired.
2. When the first paragraph is applied, insofar as this is reasonably possible, dangerous substances must be replaced by substances in connection with which the employees, considering the characteristics of those substances, the nature of the work, the work methods and the work circumstances, are not or are less exposed to danger to their health or safety.
3. If replacement is not reasonably possible or if there is still a danger remaining to the health or safety of the employees, for the application of the first paragraph such technical measures, work processes, equipment and materials must be applied that the release of dangerous substances is prevented or restricted to such an extent that the danger to the health or safety of the employees is prevented or reduced as much as possible.
4. Insofar as the measures mentioned in the second and third paragraph are not reasonably possible or do not completely remove the danger to health and safety, for the application of the first paragraph collective protective measures must be taken at source or organisational measures taken such that the danger to health or safety is prevented.

5. Insofar as measures as mentioned in the second, third and fourth paragraph are not reasonably possible or do not completely remove the danger to health and safety, for the application of the first paragraph suitable personal protective equipment must be made available.
6. The time during which the personal protective equipment meant in the fifth paragraph has to be worn must be limited to what is strictly necessary for each of the employees.

Article 4.5. Ventilation

1. If contaminated air is removed, at the same time a supply of non-contaminated air must be guaranteed.
2. The recirculation of prohibited air containing a dangerous substance towards a workplace where the respective substance is not present is prohibited.
3. The recirculation of air, containing a substance as meant in the fourth paragraph towards the same workplace is prohibited, unless the employer demonstrates that the concentration of a substance as meant in the fourth paragraph in the air which is supplied to that workplace, amounts to not more than one-tenth part of the limit value determined for that substance.
4. This Article is applicable to the following substances:
 - a. carcinogenic and mutagenic substances as meant in Article 4.11, under b and d;
 - b. a substance released during a carcinogenic process as meant in Article 4.11 under c;
 - c. substances which meet the criteria determined under Article 9.2.3.1, third paragraph, of the Environmental Management Act to be given the R phrase «may cause sensitisation by inhalation (R42)».

§ 4. Measures in specific circumstances

Article 4.6. Preventing unintended events

1. In all cases in which employees are or can be exposed to dangerous substances, measures must be taken such that the danger of an unintended event which may occur with regard to those substances or with regard to the work with those substances, is avoided as much as possible. In particular measures must be taken to:
 - a. prevent the presence of dangerous concentrations of flammable substances or dangerous quantities of chemically instable substances at the workplace or, if this is not possible considering the nature of the activities;
 - b. make sure that no sources of ignition are present which may cause fire and explosions or to avoid unfavourable circumstances which may lead to chemically unstable substances or mixtures of substances causing accidents with serious physical consequences, and
 - c. reduce harmful consequences for the health and safety of the employees as a result of fire and explosions as a result of the ignition of flammable substances or serious physical consequences as a result of accidents caused by chemically unstable substances or mixtures of substances.
2. The measures meant in the first paragraph must be geared to the nature of the activities including the storage, treatment and separation of incompatible dangerous substances and these measures must protect the employees against the dangers of physical-chemical characteristics of dangerous substances.
3. The measures meant in the first paragraph must be, insofar as this is applicable, in accordance with the Explosion-safe Materials Commodities Act Decree.

Article 4.7. Measures for unintended events

1. Insofar as it appears from the results of the assessment meant in Article 4.2, that there is a danger to

the health or safety of the employees, in addition to Article 15 of the Act, effective procedures must be arranged which are put into operation if an unintended event occurs.

2. Pursuant to the procedures meant in the first paragraph, technical or organisational measures must be taken such that when an unintended event occurs the consequences of it are restricted as much as possible.
3. In compliance with the second paragraph the following measures should in any event be taken:
 - a. effective measures must be taken immediately to restrict the consequences of an unintended event and a restoration of safe conditions must be arranged as soon as possible;
 - b. the employees must be immediately informed of the unintended event and it must be ensured that they leave the affected area;
 - c. only those employees or other persons entrusted with carrying out the necessary repair activities can access the affected area using suitable means and personal protective equipment;
 - d. the employees and other persons meant under c should not be present in the affected area longer than is strictly necessary for the restoration of safe conditions.
 - e. in addition to Article 15 of the Act suitable warning and other communication systems must be available for indicating an increased risk to health and safety and which comply with the provisions set out in or pursuant to Section 2 of Chapter 8;
 - f. anybody other than the employees and other persons meant under c must be prevented from accessing the affected area.
4. The employer must ensure that the company emergency response staff meant in Article 15 of the Act and the external emergency services can inspect on request the measures meant in the third paragraph.
5. The information about the measures meant in the fourth paragraph must in any event include:
 - a. a description of the hazards based on the assessment meant in Article 4.2;
 - b. a description of the reasonably foreseeable specific dangers based on the assessment meant in Article 4.2 which may arise during an unintended event;
 - c. a description of the measures taken in order to comply with Article 4.6, first and second paragraph;
 - d. a description of the procedures meant in the first paragraph.

Article 4.8. Explosive substances

1. Work - in connection with demolition, consisting of blasting objects or materials, or for maintenance - where substances are used which under the Environmental Management Act meet the criteria for classification in the category of «explosives», meant in Article 9.2.3.1, paragraph two under a, of that Act, must be carried out according to a blasting plan drawn up in advance or with regard to prospecting, detecting or extracting minerals a programme drawn up in advance. The contents of the blasting plan or the programme must include a proper description of the activities to be carried out, the associated dangers and the manner in which these dangers will be prevented or restricted as much as possible.
2. The demolition and maintenance work meant in the first paragraph should be carried out by or under the continuous supervision of a person in the possession of a certificate of professional blasting expertise with respect to the type of work carried out, issued by Our Minister or a certifying institution.
3. Activities consisting of blasting materials for prospecting, detecting and extracting minerals as meant in the first paragraph must be carried out by persons who are in the possession of a blasting certificate issued by Our Minister or an institution designated to this end by Our Minister.
4. The blasting plan or programme meant in the first paragraph, the certificate of professional blasting expertise meant in the second paragraph or the blasting certificate meant in the third paragraph or a copy of it must be available at the workplace and must be shown to the supervisor on request.

Article 4.9. Professional fireworks

1. Work whereby consumer fireworks, professional fireworks or pyrotechnic articles for theatrical use, as meant in Article 1.1.1, first paragraph, of the Fireworks Decree are ignited, are built up, installed, mounted and assembled on site for such purposes or are removed after ignition, must be carried out in accordance with an addition to the risk assessment and evaluation, including a proper description of the activities to be carried out, the associated dangers and the manner in which these dangers are prevented or restricted as much as possible.
2. The work meant in the first paragraph as well as work consisting of the processing of consumer fireworks, professional fireworks or pyrotechnic articles for theatrical use in an establishment as meant in Article 3.2.1 or 3A.2.1 of the Fireworks Decree must be carried out by or under the continuous supervision of a person who is in the possession of a certificate of professional expertise in consumer fireworks, professional fireworks or pyrotechnic articles for theatrical use issued by Our Minister or a certifying institution.
3. The addition to the risk assessment and evaluation referred to in the first paragraph and the certificate of competence meant in the second paragraph, or a copy thereof, must be present at the workplace and must be shown to the supervisor on request.

Article 4.10. Conventional explosives

1. In this Article the following terms have the following meaning:
 - a. conventional explosives: any explosive which is not an improvised, nuclear, biological or chemical explosive;
 - b. detecting: tracing, locating, excavating in layers, identifying, temporarily making the situation safe and transferring;
 - c. tracing: determining the presence of an object which might be a conventional explosive based on the assessment of the measuring data;
 - d. locating: determining three dimensionally the location of the traced object;
 - e. identifying: determining whether the located object is a conventional explosive and determining the type, sub-type, reinforcement situation, calibre and the nationality of the object;
 - f. temporarily making the situation safe; the activities after identification which are required to control the risk effects of the conventional explosive in relation to the environment until the moment of transfer;
 - g. transferring: transferring the conventional explosives to one of the explosives removal departments of the Ministry of Defence.
2. Work consisting of detecting conventional explosives must be carried out by a business that is in possession of a process certificate for the work to be carried out for the detection of conventional explosives issued by Our Minister or a certifying institution.
3. The certificate meant in the second paragraph or a copy of this should be present at the workplace and should be shown on request to the supervisor.

§ 5. Occupational health medical examination

Article 4.10a. Examination

1. Any employee who might be exposed for the first time to dangerous substances, should in addition to Article 18 of the Act be given the opportunity to submit to an occupational health medical examination before commencing the activities which might create exposure.
2. If the employee is found to have a harmful effect on his health or demonstrable illness which could be the consequence of being exposed to dangerous substances, employees who are similarly exposed will in the meantime be given the opportunity to submit to an occupational health medical examination.

3. The occupational health medical examination can be offered or carried out again at the request of the employer or the employee involved. The results of the re-taken examination replace the previous ones.
4. The employee should be informed about the manner in which he is given the opportunity after termination of the exposure to submit to an occupational health medical examination.
5. All the information required to be able to assess the exposure of employees to dangerous substances and to be able to advise about the periodicity and contents of the occupational health medical examinations and the preventative measures to be taken can be inspected by the expert meant in Article 2.14a, second paragraph, or the health and safety service.

Article 4.10b. Examination and biological limit values

1. Any employee who is or might be exposed to dangerous substances for which a biological limit value as meant in Article 4.1, second paragraph under b, has been determined, must be given the opportunity to submit to an occupational health medical examination:
 - a. before the commencement of the exposure;
 - b. when the biological limit value has been exceeded.
2. The examination meant in the first paragraph includes for instance an examination into the content of the respective substance in the biological medium determined at the biological limit value.
3. Provisions may be given in a Ministerial Order that the examination meant in the second paragraph will in the cases provided in this Order be replaced by a measuring of other biological indicators.
4. Methods will be determined in a Ministerial Order according to which the content of the respective substance, meant in the second paragraph, will be measured.
5. The frequency of the examination will be determined in a Ministerial Order.

Article 4.10c. Files and recording

1. The expert person meant in Article 2.14a, second paragraph, or the health and safety service must keep an up-to-date personal medical file of every employee who has submitted to an occupational health medical examination as meant in Articles 4.10a and 4.10b.
2. Every employee is entitled to inspect his medical file.
3. The results of the occupational health medical examination in a statistical form which cannot be traced back to the individual, provided with an explanation, can be inspected by the works council or the staff representation body or, failing these, be presented to the interested employees.
4. The results of the occupational health medical examination must be registered in a suitable form and be archived for each employee for up to at least 40 years after the termination of his or her exposure to dangerous substances along with the list of employees meant in Article 4.15 and the register of exposed employees meant in Article 4.53, paragraph one.
5. In the event of the activities in the business or establishment of the employer being discontinued during the period of 40 years meant in the fourth paragraph, the documents meant in the fourth paragraph should be transferred to the supervisor.

§ 6. Special provisions concerning information and instructions

Article 4.10d. Information and instruction

1. In all the cases in which work is carried out whereby employees are or might be exposed to

dangerous substances, in accordance with Article 8 of the Act, information and instructions must be given concentrating at least on:

- a. the possible health and safety dangers associated with working with dangerous substances based on the results of the assessment meant in Article 4.2;
 - b. the nature of the exposure meant in Article 4.2, first paragraph;
 - c. the limit values;
 - d. the precautions to be taken to prevent or restrict exposure to the lowest possible level;
 - e. the precautions to be taken to prevent as much as possible an unintended event occurring with regard to dangerous substances;
 - f. the hygienic measures;
 - g. wearing and using personal protective equipment;
 - h. the measures to be taken in the event of an unintended event arising with dangerous substances.
2. The employer has to give the employees the information with regard to health and safety given by the supplier of a dangerous substance including the mandatory information which is given under or pursuant to a legal provision.
 3. The manner in which this information and these instructions are given should be geared to the results of the assessment meant in Article 4.2.
 4. The information and instructions must be brought up-to-date should changed circumstances give rise to it.

Section 2. Additional provisions concerning carcinogenic or mutagenic substances and carcinogenic processes

§ 1. Definitions and applicability

Article 4.11. Definitions

In this Section and the provisions based on it, the following words have the following meaning:

- a. Directive: Directive No. 2004/37/EC of the European Parliament and the Council of 29 April 2004 on the protection of workers from the risks related to exposure to carcinogenic or mutagenic agents at work (sixth individual Directive within the meaning of Article 16, paragraph 1, of Directive 89/391/EEC of the Council)(codified version) (OJ EC L 158);
- b. carcinogenic substance:
 - 1°. a single substance which has to be classified as a category 1 or 2 carcinogen according to the criteria of Annex VI of Directive no. 67/548/EEC of the Council of the European Communities of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances (OJ EC 196) and also a substance as meant in Annex I of the Directive;
 - 2°. a multiple substance consisting of one or more substances as meant under 1 the concentration limit of which is determined in Annex I of Directive no. 67/548/EEC of the Council of the European Communities of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances (OJ EC 196) and - insofar as this relates to a substance not included in the latter Annex or which is included but without any concentration limit- a substance the concentration limit of which is determined in Annex II, Section B, of Directive no. 1999/45/EC of the European Parliament and Council of the European Union of 31 May 1999 concerning the approximation of statutory and administrative provisions of the Member States concerning the classification, packaging and marking of hazardous preparations (OJ EC L 200) and also a multiple substance as meant in Annex I of the Directive;
- c. carcinogenic process:
 - 1°. a process as meant in Annex I of the Directive as well as a substance released in a process as meant in Annex I of the Directive;

- 2°. a process to be indicated by Ministerial Order whereby multiple substances are released which are classified in one of the categories mentioned under item b, under 1°, for which no concentration limits are applicable to the individual substances.
- d. mutagenic substance:
 - 1. a single substance which has to be classified as a category 1 or 2 mutagen according to the criteria of Annex VI of Directive no. 67/548/EEC of the Council of the European Economic Community of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances (OJ EC L 196);
 - 2. a multiple substance consisting of one or more substances as meant under 1 the concentration limit of which is determined in Annex I of Directive no. 67/548/EEC of the Council of the European Economic Community of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances (OJ EC L 196) and - insofar as this relates to a substance not included in the latter Annex or which is included but without any concentration limit- a substance the concentration limit of which is determined in Annex II, part B, of Directive no. 1999/45/EC of the European Parliament and the Council of the European Union of 31 May 1999 on the approximation of laws, regulations and administrative provisions of the Member States concerning the classification, packaging and labelling of dangerous preparations (OJ EC L 200);
- e. danger zone: an area in a business or establishment where employees are or might be exposed to mutagenic or carcinogenic substances or substances released during carcinogenic processes.

Article 4.12. Linking provision

In all the cases where work is carried out whereby employees are or might be exposed to carcinogenic or mutagenic substances or to substances released during carcinogenic processes, this Section will also be applicable in addition to Section 1 of this Chapter with due observance of Article 4.1a, first paragraph.

§ 2. Written assessment and recording information

Article 4.13. Detailed provisions for risk assessment and evaluation

In all cases where work is carried out whereby employees are or might be exposed to carcinogenic or mutagenic substances or substances released during carcinogenic processes, the following must at least be included with regard to these substances or processes in the risk assessment and evaluation meant in Article 5 of the Act and in addition to Article 4.2:

- a. the reason why the use of a carcinogenic substance or the application of a carcinogenic process is strictly required for the work and why a replacement would not be technically feasible;
- b. the quantity of the carcinogenic or mutagenic substance which is usually manufactured or used per year or is usually present with regard to storage or the frequency with which a process is usually applied per year;
- c. the type of work which is usually carried out with the carcinogenic or mutagenic substance or in which the carcinogenic process is usually applied;
- d. the number of employees who are usually or might be exposed to the carcinogenic or mutagenic substance or a carcinogenic process;
- e. the preventative measures which have been taken to prevent or minimise the exposure of employees to carcinogenic or mutagenic substances or to substances released during carcinogenic processes;
- f. the personal protective equipment used during the activities whereby employees are or can be exposed to carcinogenic or mutagenic substances or to substances released during carcinogenic processes;
- g. the cases in which carcinogenic or mutagenic substances or carcinogenic processes are replaced by substances or processes whereby the employees are not or are less exposed to health or safety dangers.

Article 4.14 [Repealed as of 19/04/2002]

Article 4.15. List of employees

1. An up-to-date list must be kept of employees who are or might be exposed to carcinogenic or mutagenic substances or substances released during a carcinogenic process, stating the exposure they are submitted to.
2. Any employee is entitled to inspect information concerning him recorded on the list meant in the first paragraph.

§ 3. Limit values and preventing or restricting exposure

Article 4.16. Limit values

1. Limit values will be determined in a Ministerial Order with regard to the carcinogenic or mutagenic substances or substances released during a carcinogenic process specified in that Order.
2. If no statutory limit value for a certain carcinogenic or mutagenic substance or substance released during a carcinogenic process has been determined, the employer must determine the lowest possible limit value for that substance.
3. When a limit value has been exceeded, suitable measures should be taken immediately to reduce the concentration below this value with due observance of Articles 4.17 and 4.18.
4. So long as the measures as meant in paragraph three have not yet been fully implemented or have not resulted in effective protection, the work may only be continued if suitable measures are taken to prevent damage to the employees' health or to reduce the exposure level to the lowest possible level under the limit value.

Article 4.17. Prevention of exposure; replacement

Technical and organisational measures should be taken such that the chance of exposure of employees to carcinogenic or mutagenic substances or substances released during carcinogenic processes is prevented at source as much as possible, in particular by replacing carcinogenic or mutagenic substances and processes - insofar as this is technically feasible - by substances or processes whereby the employees - with a view to the properties of these substances or processes, the nature of the work, the working methods and operational circumstances - are not or are less exposed to the danger to their health and safety.

Article 4.18. Preventing or restricting exposure

1. Insofar as it appears from the results of the assessment meant in Article 4.2, first paragraph, that there is a health hazard for the employees and that effectively preventing the exposure by taking measures as meant in Article 4.17 is technically not feasible, the exposure - insofar as this is technically feasible - should be prevented at source or be reduced to the lowest possible level under the limit value, in particular by having the production and the use of carcinogenic or mutagenic substances or carcinogenic processes take place in a closed system.
2. If it is technically not feasible to prevent exposure or to reduce the exposure to the lowest possible level under the limit value, collective measures must be taken to remove at source the carcinogenic or mutagenic substances or the substances released during carcinogenic processes in an effective manner, for instance by the local removal of the air, if necessary replenished by general ventilation whereby, with due observance of Article 4.5, a supply of non-contaminated air is guaranteed at the same time without the public health and the environment being jeopardised.
3. If it is not technically feasible to prevent the exposure of the employees or restrict the exposure to the lowest possible level under the limit value by means of the measures meant in paragraph two,

personal protective equipment should be made available to the employees who are or might be exposed.

4. If the activities are carried out with the use of personal protective equipment in accordance with the third paragraph, the time during which each of these employees wears it should be restricted to what is strictly necessary.

Article 4.19. Restricting exposure

In all cases where work is carried out whereby employees are or might be exposed to carcinogenic or mutagenic substances or substances released during carcinogenic processes, the following measures should be taken in addition to Articles 4.1c, 4.1d and 4.18 to prevent the exposure of employees or restrict this to the lowest possible level under the limit value:

- a. employees must be sufficiently familiar with the nature of their activities and should have sufficient knowledge of the hazards attached to exposure and of the provisions made or which they should make to prevent or restrict these hazards, in accordance with information or instruction provided at least once a year;
- b. anybody other than the employees or other persons who have to enter the areas in connection with their work should be prevented from entering the danger areas;
- c. danger areas should be marked by means of warning and safety signs that comply with the provisions set out in or pursuant to Section 2 of Chapter 8;
- d. use should be made of effective means for safely storing, handling and transporting carcinogenic or mutagenic substances by using hermetically sealed and clearly visibly marked containers as much as possible, and
- e. use should be made of effective means for safely collecting, storing and removing waste materials using hermetically sealed and clearly visibly marked containers as much as possible.

Article 4.20. Protective hygiene measures

1. Areas should be fitted out where employees can eat and drink without any hazard of exposure.
2. Employees who are or might be exposed to carcinogenic or mutagenic substances or to substances released during carcinogenic processes must be provided with suitable working clothes which comply with Section 1 of Chapter 8 and which will always be worn by the employees during their work activities.
3. In addition to Article 3.22 the working clothes should be stored in separate place from other clothing.
4. In addition to Article 3.23 effective washing facilities and shower rooms should be available for the employees.
5. Personal protective equipment should be stored in accordance with the instructions in the designated place and should be cleaned after every use and checked before every use.

Article 4.21. Abnormal exposure level

If an abnormal increase in the exposure level arises as meant in Article 4.2, third paragraph, the works council or staff representation body or – if these are not present - the interested employees, should be immediately notified of the causes of the increase and of the measures which are or will be taken to remove the causes and to prevent or restrict the exposure as much as possible.

§ 4. Occupational health medical examination

Article 4.22 [Repealed as of 19/04/2002]

Article 4.23. Execution and contents of examination

1. The occupational health medical examination meant in Article 4.10a should take place with due observance of the practical recommendations included in Annex II of the Directive.
2. The expert person meant in Article 2.14a, second paragraph, or the health and safety service is entitled to inspect the list of exposed employees meant in Article 4.15. In addition, they will have at their disposal all the information required to assess the exposure of the employees to carcinogenic or mutagenic substances and substances released during carcinogenic processes and to be able to give advice on the periodicity and content of the occupational health medical examination meant in the first paragraph, the preventative measures to be taken or personal protective equipment used.

Article 4.24 [Repealed as of 19/04/2002]

Section 3

Article 4.25 [Repealed as of 19/04/2002]

Article 4.25a [Repealed as of 19/04/2002]

Article 4.25b [Repealed as of 19/04/2002]

Article 4.26 [Repealed as of 19/04/2002]

Article 4.27 [Repealed as of 19/04/2002]

Article 4.28 [Repealed as of 19/04/2002]

Article 4.29 [Repealed as of 19/04/2002]

Article 4.30 [Repealed as of 19/04/2002]

Article 4.31 [Repealed as of 19/04/2002]

Article 4.32 [Repealed as of 19/04/2002]

Article 4.33 [Repealed as of 19/04/2002]

Article 4.34 [Repealed as of 19/04/2002]

Article 4.35 [Repealed as of 19/04/2002]

Section 4 [Repealed as of 01/01/2007]

Article 4.36 [Repealed as of 01/01/2007]

Section 5. Additional provisions for asbestos

§ 1. Definitions and applicability

Article 4.37. Definition of asbestos

In this Section and the provisions based on it, the following words have the following meaning:

- a. asbestos: substances containing one or more of the following fibrous silicates:
 - 1°. actinolite (CAS Number 77536-66-4);
 - 2°. amosite (CAS Number 12172-73-5);
 - 3°. anthophyllite (CAS Number 77536-67-5);
 - 4°. chrysotyl (CAS Number 12001-29-5);
 - 5°. tremolite (CAS Number 77536-68-6);
 - 6°. crocidolite (CAS Number 12001-28-4);
- b. products containing asbestos: products containing one or more of the fibrous silicates mentioned under a;
- c. fibre: particle longer than 5 micrometers, having a width of less than 3 micrometers and a length/width proportion of more than 3/1;
- d. object: construction, installation, device or means of transport, not being a structure.

Article 4.37a. Linking provision

If work is carried out whereby employees are or might be exposed to asbestos or products containing asbestos, this Section will also be applicable in addition to Sections 1 and 2 of this Chapter, with due observance of Articles 4.37b and 4.37c.

Article 4.37b. Varying provisions

1. Contrary to Article 4.15, Article 4.53 will be applicable.
2. Contrary to Article 4.16, Articles 4.46 and 4.47a will be applicable.
3. Contrary to Article 4.19 under d and e, Article 4.45, second paragraph under c and d will be applicable.
4. Contrary to Article 4.20, paragraph five, Article 4.51, third paragraph will be applicable.

Article 4.37c. Applicability

This Section is applicable to activities with regard to asbestos or products containing asbestos if the concentration of asbestos exceeds one hundred milligrams per kilogram of dry substance as meant in Article 2 under b, of the Asbestos Products Decree.

§ 2 [Repealed as of 08/-03/2005]

Article 4.38 [Repealed as of 08/03/2005]

Article 4.39 [Repealed as of 08-03-2005]

Article 4.40 [Repealed as of 08/03/2005]

Article 4.41 [Repealed as of 08/03/2005]

Article 4.42 [Repealed as of 08/03/2005]

§ 3. Provisions for working with asbestos and products containing asbestos.

Article 4.43 [Repealed as of 27/06/2000]

Article 4.44. Risk class 1

This division is applicable if it appears from the assessment meant in Article 4.2, first paragraph, that the concentration of asbestos dust in the air to which the employees are exposed in the course of their work, is lower than or equal to the limit value meant in Article 4.46.

Article 4.45. Preventative measures

1. The concentration of asbestos dust in the air should be kept as low as possible under the limit value meant in Article 4.46.
2. In compliance with the first paragraph the following measures should be taken:
 - a. the working methods must be organised such that no asbestos dust will be produced or if this is technically not possible, that no asbestos dust will be released into the air;
 - b. buildings, installations and equipment serving to apply or process asbestos or products containing asbestos must be suitably and regularly cleaned and maintained;
 - c. asbestos, products containing asbestos and products releasing asbestos must be stored and transported in closed packaging suitable to this end;
 - d. waste materials created as a result of applying or processing asbestos or products containing asbestos, should be collected as soon as possible and removed in closed packaging suitable for this purpose and provided with a label indicating clearly and in a properly readable manner that it contains asbestos.
3. Article 4.20, fourth paragraph, insofar this relates to the availability of showers, is not applicable if the concentration of asbestos dust in the air is classified in risk class 1.

Article 4.45a. Information

Suitable information about the following subjects must be given to employees who carry out work where there is a danger of being exposed to asbestos dust:

- a. the possible health hazards of exposure to asbestos dust;
- b. the necessity of supervision of the asbestos content in the air and the limit values applicable to it;
- c. the measures regarding hygiene meant in Article 4.51;
- d. measures to keep the exposure to asbestos dust as low as possible;
- e. the correct use of personal protective equipment and clothing.

Article 4.45b. Instructions

1. Suitable training should be arranged at regular intervals for all employees who carry out activities whereby they are or might be exposed to asbestos dust.
2. This training is focussed on the knowledge level and experience of the employees and must provide them with the necessary knowledge and skills regarding safety and prevention, in particular with regard to:

- a. properties of asbestos and the effect of asbestos on health including the synergetic effect of smoking;
- b. types of products and materials that may contain asbestos;
- c. acts which may lead to exposure to asbestos and the importance of preventative checks in order to restrict the exposure to a minimum;
- d. safe working methods, checks and protective equipment;
- e. the choice and selection, the restrictions and the effective use of respirators;
- f. emergency procedures;
- g. disinfecting processes;
- h. the manner in which the removal of waste materials can be carried out safely;
- i. the requirements regarding medical supervision.

Article 4.46. Limit value

The concentration of asbestos dust in the air should not exceed the limit value of 0.01 fibres per cubic centimetre, calculated for a reference period of eight hours.

Article 4.47. Measuring and sampling

1. In order to be able to guarantee compliance with the limit value meant in Article 4.46, in connection with the risk assessment meant in Article 4.2 the concentration of asbestos dust in the air to which the employees are exposed in the course of their work must be measured.
2. The measuring must take place at regular intervals depending on the results of the first risk assessment meant in Article 4.2.
3. The measuring should be carried out in accordance with a method to be determined in a Ministerial Order or another method if this produces equivalent results.
4. The works council or the staff representation body, or if these are not present, the interested employees, should be given the opportunity to express their opinion about the manner in which the sampling takes place.
5. The sampling is representative of the individual exposure of the employees to asbestos dust.
6. The sampling should be carried out in such a manner that by measuring or by calculating this measuring - weighted as to time - an exposure of employees to asbestos dust can be determined which is representative for an 8 hour reference period.
7. A person having the required expertise to this end should carry out the sampling.
8. The sample analysis to be made after the sampling should be carried out in a laboratory which is suitably equipped to this end and also has experience of the required identification techniques.
9. The Works Council or the staff representation body or, failing these, the interested employees can inspect the results of the measuring and can obtain clarification about the meaning of these results.

Article 4.47a. Measures when the limit value has been exceeded

1. Should the limit value meant in Article 4.46 be exceeded, the causes of the excess must be detected and effective measures should be taken as soon as possible to reduce the concentration below this value.
2. The Works Council or staff representation body or, failing these, the interested employees must be notified as soon as possible of the excess, its cause and the measures to be taken. In addition, they must be given the opportunity to express their opinion about the measures meant in the first paragraph unless there are urgent reasons to take these measures without giving this opportunity. In that case they must be informed about the measures taken.

3. For as long as the measures to reduce the concentration meant in the first paragraph have not yet been fully implemented, the work should only be continued at the respective workplace if the employees involved are suitably protected against exposure to asbestos dust.
4. When in the situation meant in the third paragraph the exposure cannot be restricted with other means and the limit value requires wearing individual respirators, the time during which each employee has to wear these must be restricted to what is strictly necessary.
5. When individual respirators are used, breaks must be provided.
6. The number of breaks meant in the fifth paragraph and their duration must be determined by the physical and climatic load under which the employee has to carry out the activities.
7. In the event that there is no Works Council or staff representation body the breaks meant in the fifth paragraph, if necessary, must be determined in consultation with the interested employees.
8. After the measures meant in the first paragraph have been taken, the concentration of asbestos dust in the air must be measured in accordance with Article 4.47 and the classification in a risk class as meant in Articles 4.44, 4.48 or 4.53a must be re-determined.
9. If it appears from the measuring meant in the eighth paragraph that the concentration is classified in a high-risk class, division 4 or 5 of this Section will also be applicable.

Article 4.47b. Visual inspection

1. After activities with asbestos have finished and before other activities are started up a final assessment must be carried out at the respective workplace.
2. The final assessment meant in the first paragraph concerns a visual inspection whereby it is determined that the presence of asbestos is no longer visually observable.

Article 4.47c. Notification

1. At least two days before these activities are started up, the employer must notify the designated supervisory authority. This notification must at least include a concise description of:
 - a. the location where the activities are carried out;
 - b. the types and quantities of products containing asbestos;
 - c. the activities carried out with asbestos or products containing asbestos, the working methods as well as the classification of the concentration of asbestos dust in the air into a risk class;
 - d. the number of employees involved;
 - e. the date and time at which the activities are starting as well as their duration;
 - f. the measures which will be taken to restrict the exposure of employees to asbestos.
2. Each time a change in working conditions may lead to a considerable increase in exposure to asbestos dust or products containing asbestos, the official has to be re-notified.
3. The information notified pursuant to the first and second paragraph can be inspected by the Works Council or the staff representation body or, failing these, by the interested employees.
4. Article 4.54b, with the exception of the provisions under a, applies accordingly.

§ 4. Additional provisions for working with asbestos and products containing asbestos

Article 4.48. Risk class 2

If it appears from the assessment meant in Article 4.2, first paragraph, that the concentration of asbestos dust in the air to which the employees are exposed in the course of their work exceeds the limit value

meant in Article 4.46, but is lower than or equal to 1 fibre per cubic centimetre based on a reference period of eight hours, in addition to division 3 this division is also applicable.

Article 4.48a. Additional measures

1. If, considering the nature of the activities, the limit value meant in Article 4.46 can be expected to be exceeded despite preventative technical measures to reduce the asbestos concentration in the air, the employer must take suitable measures to protect the employees involved.
2. The measures meant in the first paragraph include in any event:
 - a. providing suitable respirators and other personal protective equipment and making it mandatory to wear them;
 - b. posting warning signs in compliance with the provisions laid down in or pursuant to Section 2 of Chapter 8, in order to indicate that the limit value meant in Article 4.46, can be expected to be exceeded;
 - c. preventing the spread of the dust originating from asbestos or asbestos-bearing materials outside the areas where the activities are taking place.
3. The Works Council or the staff representation body or, failing these, the interested employees should be given the opportunity to express their opinion on the measures meant in the first paragraph.
4. Before other activities are started up, the asbestos or the asbestos bearing products present must be removed except when this would entail a greater health or safety danger for the employees.

Article 4.49 [Repealed as of 28/07/2006]

Article 4.50. Work plan

1. Before the activities are started up the employer of the business meant in Article 4.54d, first paragraph, must draw up a written work plan including effective measures tailored to the specific situation in the respective workplace for the protection of the health and safety of the employees involved.
2. If an inventory report as meant in Article 4.54a, third paragraph, has been drawn up, the results of that report must be included in the work plan.
3. It must be prescribed in the work plan that the employer of the business meant in Article 4.54d, first paragraph, ascertains that after the final assessment meant in Article 4.51a, there are no longer any risks of exposure to asbestos or asbestos-bearing products.
4. The work plan must include the following information:
 - a. a description of the measures, meant in Article 4.1c, first paragraph, opening sentence and under d and g, Article 4.7, paragraph three under b, c and e, Article 4.18, Article 4.19 opening sentence and under b and c, Article 4.20, first to fourth paragraph, Article 4.45, first and second paragraph under a, b, and d, Article 4.48a, second and fourth paragraph and Article 4.51.
 - b. a description of the nature, duration and place of the activities and also of the working method;
 - c. a description of the tools, machines, appliances and other aids used in the activities;
 - d. the names of the employees and persons meant in Article 4.54d, fifth and seventh paragraph.
5. The activities should be carried out in accordance with the work plan drawn up.
6. The work plan or a copy of it should be present at the workplace and should be shown on request to the supervisor.

Article 4.51. Protective hygiene measures

1. Working clothes may only be taken outside the business or the establishment if it is necessary for cleaning it in suitably equipped laundries.
2. In the cases as meant in the first paragraph, the working clothes should be transported in closed packaging suitable for this purpose.
3. When protective equipment is supplied, this should be stored in a specially dedicated place and after every use it should be checked and cleaned. Faulty equipment should not be used.

Article 4.51a. Final assessment

1. After the activities and after the workplace has been cleaned, and before other activities are started up a final assessment must be made at the respective workplace in an inside area during which sampling must be carried out by a person as meant in Article 4.47, seventh paragraph, and the sample analysis by a laboratory as meant in Article 4.47, eighth paragraph.
2. The final assessment meant in the first paragraph involves a visual inspection followed by a final measuring in order to ascertain as to whether the concentration of asbestos dust in the air is lower than 0.01 fibre per cubic centimetre based on a reference period of two hours.
3. After the activities and after the workplace has been cleaned, and before other activities are started up, a visual inspection must be carried out by a company suitably equipped to this end at the respective workplace in the outside air, whereby it is determined that the presence of asbestos is no longer visually observable.
4. If the activities in the outside air involve asbestos-bearing soil, after the activities have finished a company suitably equipped to this end must carry out a visual inspection as to the presence of asbestos in order to determine that the concentration of asbestos does not exceed one hundred milligrams per kilogram of dry substance as meant in Article 2, under b, of the Asbestos Products Decree.
5. Detailed provisions may be laid down in a Ministerial Order with regard to the sampling meant in the first paragraph, the final measuring, meant in the second paragraph, and the visual inspection meant in the second, third and fourth paragraph.

Article 4.52. Occupational health medical examination

1. For as long as the exposure to asbestos dust lasts, in addition to Article 4.10a, third paragraph, the respective employees must again be given the opportunity at least once every three years to submit to an occupational health medical examination meant in Article 4.10a.
2. The occupational health medical examination meant in Article 4.10a will in any event include a specific examination of the chest.
3. If the result of the occupational health medical examination gives rise to it, effective measures should be taken in order to prevent damage to the health of the respective employee from being exposed to asbestos dust.
4. In addition to Article 4.10a, fourth paragraph, an expert meant in Article 2.14a, second paragraph, or the health and safety service may declare that the medical supervision after termination of the exposure must be continued for as long as this is deemed necessary for the health of the respective employee.

Article 4.53. Registration

1. Each employee who is exposed to asbestos dust in the course of his work must be entered into a register, specifying the nature and duration of the work as well as the extent of the exposure.

2. The information entered into the register can be inspected by the expert meant in Article 2.14a, second paragraph, or the health and safety service.
3. Each employee can inspect his personal information in the register.
4. The information in the register in a statistical form which cannot be traced back to the individual, provided with an explanation, can be inspected by the Works Council or the staff representation body or, failing these, by the interested employees.

§ 5. Extra additional provisions for working with asbestos and products containing asbestos

Article 4.53a. Risk class 3

If it appears from the assessment meant in Article 4.2, first paragraph, that the concentration of asbestos dust in the air to which the employees are exposed in the course of their work, exceeds 1 fibre per cubic centimetre based on a reference period of eight hours, this division is also applicable in addition to division 3 and division 4.

Article 4.54. More severe final assessment

In addition to Article 4.51a, first and second paragraph, a final assessment should also be carried out in the areas situated next to the workplace. Article 4.51a, first and second paragraph, applies accordingly.

§ 6. Certification

Article 4.54a. Asbestos inventory

1. In connection with the assessment meant in Article 4.2, a full inventory must be drawn up of the presence of asbestos or asbestos-bearing products before the following activities are started up:
 - a. fully or partly dismantling structures, with the exception of groundwork, or objects in which asbestos or asbestos-bearing products have been processed;
 - b. removing asbestos or asbestos-bearing products from the structures or objects meant under a;
 - c. removal of asbestos or asbestos-bearing products released as a result of an incident.
2. On the basis of the inventory meant in the first paragraph, in connection with the risk assessment, meant in Article 4.2, the company meant in the fourth paragraph, must determine in which risk class as meant in Articles 4.44, 4.48 or 4.53a the activities are classified.
3. The results of the inventory meant in the first paragraph, and the classification in a risk class meant in the second paragraph, must be included in an inventory report.
4. The inventory, meant in the first paragraph, and the inventory report, meant in the third paragraph, must be carried out or drawn up by a company which is in the possession of an asbestos inventory certificate issued by Our Minister or a certifying institution.
5. A copy of the inventory report must be given to the company removing the asbestos.
6. The asbestos inventory certificate or a copy of it should be present at the workplace and should be shown to the supervisory authority on request.

Article 4.54b. Exceptions to asbestos inventory

Article 4.54a is not applicable if the activities meant in Article 4.54a, first paragraph, relate to:

- a. actions carried out in or on structures or objects manufactured on or after 1 January 1994;
- b. the full or partial removal of asbestos-cement bearing water pipes, gas pipes, sewage drains and cable protection pipes or parts thereof insofar as they form part of the underground public network

- of gas, water and sewer pipes;
- c. the full or partial removal of asbestos-bearing brake and friction materials;
- d. the full or partial removal of asbestos-bearing clamped floor slabs under heating appliances;
- e. the removal of asbestos-bearing heating appliances as one unit;
- f. the full or partial removal of asbestos-bearing glazing sealant incorporated in the construction of greenhouses;
- c. the full or partial removal of asbestos-bearing gaskets from internal combustion engines;
- h. the full or partial removal of asbestos-bearing gaskets or parts thereof from process installations or heating appliances with a nominal capacity below 2,250 kilowatt;
- i. the full or partial removal of asbestos or asbestos-bearing products from roads as meant in the Asbestos-bearing Roads (Environmental Management) Decree.

Article 4.54c [Repealed as of 28/07/2006]

Article 4.54d. Expertise when working with asbestos

1. If the concentration of asbestos dust is classified in risk class 2 or 3, the following activities must be carried out by a company which is in the possession of an asbestos removal certificate issued by Our Minister or a certifying institution:
 - a. the activities meant in Article 4.54a first paragraph;
 - b. cleaning the workplace after the action as meant in Article 4.54a, first paragraph, under a or b, has been carried out.
2. Article 4.54b, with the exception of the provisions under a, applies accordingly.
3. Before the removal of asbestos is started, the company as meant in Article 4.54a, fifth paragraph, must be in possession of a copy of an inventory report as meant in Article 4.54a, third paragraph, insofar as this is applicable.
4. When the activities meant in the first paragraph are being carried out, in connection with the risk assessment, meant in Article 4.2, the classification of the risk class in the inventory report must be applied as the lower limit.
5. The activities, meant in the first paragraph, should be carried out by or under the continuous supervision of a person in the possession of a certificate of competence for supervising work with asbestos, issued by Our Minister or a certifying institution.
6. In the company as meant in the first paragraph at least one person as meant in the fifth paragraph should be employed pursuant to an employment contract.
7. Insofar as the activities meant in the first paragraph are also carried out by a person other than the person meant in the fifth paragraph, this other person should be in the possession of a certificate of competence in the removal of asbestos issued by Our Minister or a certifying institution.
8. If the actions meant in Article 5, under e and f, of the Asbestos Products Decree relate to activities with asbestos-bearing soil, these activities should be assisted by a person who is in the possession of a certificate of competence in labour hygiene or safety studies as meant in Article 2.7, second paragraph.
9. The certificates meant in the first, fifth and seventh paragraph, or copies of it and a copy of the inventory report meant in Article 4.54a, third paragraph, must be present at the workplace and must be shown to the supervisor on request.

Article 4.55 [Repealed as of 28/07/2006]

Article 4.55a [Repealed as of 28/07/2006]

Article 4.56 [Repealed as of 28/07/2006]

§ 7 [Repealed as of 28/07/2006]

Article 4.57 [Repealed as of 28/07/2006]

Section 6. Specific substances harmful for health

Article 4.58. Propanesultone prohibition

1. The manufacture or use of propanesultone (CAS Number 1120-71-4) is prohibited.
2. Keeping propanesultone in stock other than for transit is prohibited.

Article 4.59. Specific substances prohibition

1. The manufacture or use of the following substances is prohibited:
 - a. 2-naphtylamine and its salts (CAS Number 91-59-8);
 - b. 4-aminodiphenyl and its salts (CAS Number 92-67-1);
 - c. benzidine and its salts (CAS Number 92-87-5);
 - d. 4-nitrodiphenyl (CAS Number 92-93-3);
2. Keeping the substances meant in the first paragraph in stock other than for transit is prohibited.
3. The prohibitions contained in the first and second paragraph do not apply if the substances are present in a mixture or solution in a concentration smaller than 0.1 weight percentage.

Article 4.60. Sandstone prohibition

1. Working or processing sandstone is prohibited.
2. The first paragraph does not apply to:
 - a. working or processing sandstone if this is necessary for the maintenance of monuments as meant in the Monuments and Historic Buildings Act 1988;
 - b. demounting sandstone or sandstone parts from buildings, constructions or installations, and
 - c. carrying out scientific research into sandstone.
3. Keeping sandstone in stock is prohibited.
4. The third paragraph does not apply with respect to:
 - a. keeping sandstone in stock for the activities meant in the second paragraph under a;
 - b. the transit of sandstone;
 - c. objects consisting in whole or in part of sandstone and which are ready and fully finished for their destination.

Article 4.61. Sandblasting prohibition

1. In this Article the following terms have the following meaning:

- a. blasting: hitting an object with granules at high speed in order to clean or work this object with the exception of operations covering the object with a layer of material;
 - b. desanding: blasting a casting in order to remove attached moulding sand from it.
2. Blasting with a substance containing more than 1% of quartz or other form of crystalline silicon dioxide is prohibited.
 3. Desanding may only take place in equipment or rooms specially intended for this purpose.
 4. The dust caused by desanding should be extracted, separated from the airflow and collected in an effective manner.
 5. The air extracted from desanding should not be removed into a room in which persons have to be present.

Article 4.61a. Prohibition of benzene and chlorinated hydrocarbons

1. The use of benzene or a product the benzene content of which amounts to more than 1 volume percent as a solvent, cleaning agent or thinner, is not allowed unless this takes place in a closed system or in another manner offering at least the same level of protection against exposure to it.
2. If benzene or a product as meant in the first paragraph is being used other than as a solvent, cleaning agent or thinner, this should be carried out as much as possible in a closed system.
3. The first and second paragraph apply accordingly with respect to carbon tetrachloride, pentachloroethane and 1,1,2,2-tetrachloroethane and also with respect to a product the content of which amounts to more than 1 volume percent of one of the said substances.

Article 4.61b. White lead prohibition

1. The use of white lead, lead sulphate or products having one of these substances as a component when painting the inside of buildings or vessels is prohibited.
2. The lead sulphate co-precipitated in the preparation of chrome yellow is not regarded as a substance within the sense of the first paragraph.
3. The prohibition meant in the first paragraph does not apply to paints the pigment of which in the dry substance contains not more than 2 weight percent of lead.

Article 4.62. Applicability

Insofar as the activities meant in Articles 4.59, first and second paragraph, and 4.60, first and third paragraph, and the use of benzene, meant in Article 4.61a, are allowed, Section 2 of this Chapter is applicable with due observance of Article 4.12.

Section 7. Volatile organic substances

Article 4.62a. Definition

For the purposes of this Section volatile organic substances means: organic compounds and mixtures of these, having a vapour pressure at 293.15 K of at least 0.01 kPa or a corresponding volatility under the specific user circumstances.

Article 4.62b. Prevention of exposure; replacement

With respect to activities indicated by Ministerial Order the hazard of exposure of employees to volatile organic substances should be avoided as much as possible by replacing volatile organic substances by

harmless or less harmful substances or by replacing products containing volatile organic substances by products specified with respect to those activities by Ministerial Order.

Article 4.63 [Repealed as of 19/04/2002]

Article 4.64 [Repealed as of 19/04/2002]

Article 4.65 [Repealed as of 19/04/2002]

Article 4.66 [Repealed as of 19/04/2002]

Article 4.67 [Repealed as of 19/04/2002]

Article 4.68 [Repealed as of 19/04/2002]

Article 4.69 [Repealed as of 19/04/2002]

Article 4.70 [Repealed as of 19/04/2002]

Article 4.71 [Repealed as of 19/04/2002]

Article 4.72 [Repealed as of 19/04/2002]

Article 4.73 [Repealed as of 19/04/2002]

Article 4.74 [Repealed as of 19/04/2002]

Article 4.75 [Repealed as of 19/04/2002]

Article 4.76 [Repealed as of 19/04/2002]

Article 4.77 [Repealed as of 19/04/2002]

Article 4.78 [Repealed as of 01/01/2007]

Article 4.79 [Repealed as of 01/01/2007]

Article 4.80 [Repealed as of 01/01/2007]

Article 4.81 [Repealed as of 01/01/2007]

Section 8 [Repealed as of 01/01/2007]

Article 4.82 [Repealed as of 01/01/2007]

Article 4.83 [Repealed as of 01/01/2007]

Section 9. Biological agents

§ 1. Definitions and applicability

Article 4.84. Biological agents, cell cultures and micro organisms

1. Sections 1 to 8 of this Chapter do not apply to biological agents.
2. In this Section the following terms have the following meaning:
 - a. biological agents: whether or not genetically modified micro-organisms, cell cultures and human endoparasites which might cause an infection, allergy or toxicity;
 - b. cell culture: artificial cultivation of cells of multi-cell organisms;
 - c. micro-organism: a cellular or non-cellular micro-biological entity with the capacity to multiply or transmit genetic material;
 - d. Directive: Directive No. 2000/54/EC of the European Parliament and the Council of the European Union of 18 September 2000 (OJ EC L 262) on the protection of workers from risks related to exposure to biological agents at work (seventh individual Directive within the meaning of Article 16, paragraph 1, of Directive no. 89/391/EEC).
3. For the purposes of this Section biological agents are divided into the following categories:
 - a. category 1: an agent of which it is improbable that it could cause a disease for humans;
 - b. category 2: an agent which could cause a disease for humans and could result in a hazard for the health and safety of the employees but of which it is improbable that it would spread amongst the population whilst there is usually an effective prophylaxis for it or treatment for it;
 - c. category 3: an agent which could cause a serious disease for humans and could result in a major hazard for the health and safety of the employees and of which there is a chance that it would spread amongst the population whilst there is usually an prophylaxis for it or treatment for it;
 - d. category 4: an agent causing a serious disease for humans and resulting in a major hazard to the health and safety of the employees and that very probably would spread amongst the population while there is usually no effective prophylaxis for it or treatment for it.
4. In this Section the classification of biological agents as laid down in Annex III of the Directive is taken as a starting point.

§ 2. Risk assessment and evaluation and the consequences of classification

Article 4.85. Detailed provisions for risk assessment and evaluation

1. If an employee is or might be exposed to one or more biological agents specifically occurring or expected to occur at his workplace, with respect to the risk assessment and evaluation meant in Article 5 of the Act, the nature, extent and duration of the exposure must be assessed in order to determine the hazard for the employee. This assessment will take place with due observance particularly of:
 - a. the category or categories in which the biological agents to which the employees might be

- exposed are classified;
 - b. information on the diseases which employees might suffer or already are suffering from as a result of exposure to biological agents;
 - c. possible allergic or poisoning effects which the employees experience or might experience as a result of the exposure to biological agents;
 - d. the results of the occupational health medical examinations meant in Article 4.91 as well as the diseases from which it is known that an employee is suffering and the medicines the employee is known to be using, all in a statistical form which cannot be traced back to the individual;
 - e. the recommendations given to this end by an authority competent to do so to keep the biological agent under control in order to protect the health of the employees when the employees are or might be exposed to such an agent as a result of their work.
2. If various biological agents are involved, the assessment meant in the first paragraph must be based on the risk that those biological agents create in combination.
 3. The assessment meant in the first paragraph, must be regularly reviewed, in any event each time there is a change in circumstances which might affect the exposure of employees to biological agents.

Article 4.86. Consequences of classification

1. If the work is aimed at working with biological agents covered by categories 2, 3 or 4, Articles 4.87 to 4.102 are applicable.
2. If it appears from the results of the risk assessment and evaluation meant in Article 4.85 that the employees when carrying out work other than that meant in the first paragraph, including the activities mentioned in Annex I of the Directive, have a reasonable chance of being exposed to biological agents of categories 2, 3 or 4, Articles 4.87, 4.87a, 4.87b, 4.89, 4.91, 4.93, 4.95, 4.97, 4.98, 4.99, second paragraph, and 4.102 are applicable.
3. In all cases not mentioned in the first and second paragraph, the highest care, tidiness and cleanliness possible should be observed when carrying out the work and the necessary hygienic provisions should be made.

§ 3. Exposure measures

Article 4.87. Prevention of exposure; replacement

If the nature of the work allows it, harmful biological agents must be replaced by biological agents which, considering the latest science and technology and the working circumstances, are not or are less hazardous to the health and safety of the employees.

Article 4.87a. Preventing or restricting exposure

1. Insofar as it appears from the results of the assessment meant in Article 4.85 that there is a risk to the health or safety of the employees and that because of the nature of the work it is not feasible to replace biological agents by biological agents which are not hazardous, insofar as this is technically feasible, other measures must be taken such that exposure of employees to biological agents is prevented and the risks limited.
2. Insofar as the measures meant in the first paragraph are technically not feasible, the exposure of employees to biological agents must be reduced to such a low level as is necessary for an adequate protection of the health and safety of the employees.
3. In implementation of the second paragraph the following measures should at least be taken:
 - a. the chance of exposure should be restricted as much as possible;
 - b. the number of employees running the risk of being exposed to one or more biological agents

- should not be greater than is strictly necessary for the carrying out of the work;
- c. collective protection measures should be taken and when this does not give protection, or gives insufficient protection, personal protective equipment should be made available;
- d. in the course of the work the highest degree of tidiness and cleanliness should be observed in order to prevent or restrict the chance that one or more biological agents might end up outside the workplace;
- e. biological agents should be stored and transported and waste materials should be collected, stored and removed in such a manner - if necessary after suitable treatment and being provided with proper markings - that the chance of being exposed is avoided as much as possible and they are also prevented from ending up in the hands of unauthorised persons;
- f. if necessary and if technically feasible, there should be research into the presence of biological agents in the workplace outside the first physical encasement;
- g. suitable written work instructions for the employees should be available at the workplace which at least contain the procedures to be observed whilst working including regulations for safely handling and transporting biological agents within the business or establishment as well as an effective contingency plan in case of accidents or incidents involving biological agents.

Article 4.87b. Measures to prevent or reduce exposure to legionella bacterium during the commissioning and operation of an air humidifier and a water installation

1. During the commissioning or operation of:
 - a. an air humidifier other than an injection steam humidifier;
 - b. a water installation releasing water in aerosol form in the air not being a collective water supply or a collective network of pipes as meant in Article 1, first paragraph, of the Drinking Water Supply Act

the measures meant in Article 4.87a, first and second paragraphs, when preventing or reducing the exposure to the legionella bacterium are effective if the water in these installations contains less than 100 colony-forming units of legionella bacteria per litre.

2. Sampling and analysing the samples in order to check for the presence of legionella bacteria should take place in accordance with a suitable standardised method.
3. This Article does not apply to cooling towers.

Article 4.88. Safety signs

The places where work is being carried out with biological agents should be clearly demarcated and marked by a safety sign that complies with the provisions set out in or pursuant to Section 2 of Chapter 8.

Article 4.89. Protective hygiene measures

1. Smoking or the consumption of food or drink should not take place in places where there is a danger of exposure to biological agents.
2. Working clothes in compliance with Section 1 of Chapter 8 should be made available to the employees and should be worn during the work.
3. In addition to Article 3.23 suitable sanitary facilities should be made available to the employees including, insofar as this is necessary, showers, eye-baths and skin antiseptics.
4. If personal protective equipment is supplied to the employee, these should be stored in a specially dedicated place and should be cleaned after every use and checked before every use.
5. In addition to Article 3.22 the working clothes and other personal protective equipment in or on which biological agents are or might be situated should be taken off on leaving the workplace and be stored

in a separate place from other clothing.

6. The working clothes and other personal protective equipment meant in the fifth paragraph must be decontaminated, cleaned and if necessary destroyed.
7. The working clothes and other personal protective equipment meant in the fifth paragraph should be taken outside the business or establishment in closed packaging suitable to this end and this should only be done with the aim of having them cleaned, decontaminated or destroyed.

Article 4.90. Registration

1. A register should be maintained indicating which employees are or might be exposed to biological agents of categories 3 and 4.
2. This register should also contain the activities which each employee has carried out and - insofar as this can be determined - the biological agent(s) to which they have or might have been exposed as a result of these activities or as a result of an incident or accident.
3. The register meant in the first paragraph should be kept for at least ten years after the last exposure or possible exposure.
4. If an employee is or might be exposed to a biological agent which could result in infections which:
 - a. are known to be possibly stubborn or latent;
 - b. might only be recognised many years later according to the expectations based on the latest technology;
 - c. have a long incubation period;
 - d. despite treatment always recur, or
 - e. have serious complications in the long-term, the register meant in the first paragraph should be kept for a correspondingly longer time but not more than forty years after the last exposure.
5. Each employee is entitled to inspect the information on him in the register.
6. The company physician referred to in Article 14, first paragraph, opening sentence, of the Act or the health and safety service can inspect the register mentioned in the first paragraph, on request.

§ 4. Occupational health medical examination

Article 4.91. Examination and vaccinations

1. Every employee who is or might be exposed to biological agents, should - in addition to Article 18 of the Act - be given the opportunity to submit to an occupational health medical examination on commencing the activities which might create exposure.
2. Every employee who sustains an infection or disease as a result of being exposed to a biological agent should in the interim - in addition to the first paragraph - be given the opportunity to submit to an occupational health medical examination.
3. Every employee who is being exposed to the same biological agent which has resulted in another employee sustaining an infection or disease should in the interim - in addition to the first paragraph - be given the opportunity to submit to an occupational health medical examination.
4. The occupational health medical examination should take place with due observance of the practical recommendations included in Annex IV of the Directive.
5. If the result of the occupational health medical examination gives rise to it, effective measures should be taken in order to avoid damage to the health of the employee involved from being exposed to biological agents.

6. Where possible effective vaccinations should be made available to each employee who is not yet immune to the biological agents to which he is or might be exposed. In this connection Annex VII of the Directive should be observed.
7. At the request of the employer or the respective employee, the examination meant in this Article should be re-taken. The result of the re-examination replaces the previous one.
8. Every employee is entitled to inspect his medical file.
9. The results of the occupational health medical examination meant in this Article should be recorded in an appropriate form and be kept for at least ten years after the last exposure or possible exposure. In cases as meant in Article 4.90, fourth paragraph, the results should be kept for a correspondingly longer time but not longer than for forty years.
10. Every employee should be informed about the manner in which he is given the opportunity after termination of the exposure to submit to an occupational health medical examination.

§ 5. Works Council

Article 4.92. Information in connection with an accident or incident

The Works Council or the staff representation body or, failing these, the interested employees, should be informed of any accident or incident which occurred, nearly occurred or might possibly have occurred involving biological agents and which has resulted in the release, near release or possible release of an agent or agents of categories 2, 3 or 4.

In doing so, the causes of the accident or incident should also be communicated and also the measures being taken or which will be taken in order to remedy the consequences and to avoid further accidents or incidents.

Article 4.93. Other information

1. When requested, the Works Council or the staff representation body or, failing these, the interested employees should be informed about the following:
 - a. the manner in which the risk assessment and evaluation meant in Article 4.85 was formed and the result of it;
 - b. the activities with respect to which the employees are or might be exposed to biological agents;
 - c. the number of employees which is or might be exposed to biological agents;
 - d. the name and position of the person responsible for health and safety in the workplace;
 - e. the preventative and protective measures taken also including the work instructions meant in Article 4.87, fourth paragraph, the work processes and working methods applied.
2. The Works Council or the staff representation body or, failing these, the interested employees, are entitled to inspect the information meant in this Article in a statistical form which cannot be traced back to the individual.

§ 6. Supervision

Article 4.94. Notification

1. At least 30 days before work is to be carried out with one or more biological agents of categories 2, 3 or 4 for the first time, this must be reported to a supervisor designated to this end.
2. This report should contain at least the following information:
 - a. the name and address of the employer;
 - b. the name and position of the person responsible for health and safety in the workplace;

- c. the results of the risk assessment and evaluation meant in Article 4.85;
 - d. the category or categories and type or types to which the biological agent or biological agents belongs or belong;
 - e. the intended protective and preventative measures.
3. With due observance of the first paragraph, work with each successive new biological agent of category 4 and – when the employer himself has provisionally classified this agent – the work with each successive new biological agent of category 3 must also be reported.
 4. Contrary to the first and third paragraph, the supervisor meant in the first paragraph - in cases where only diagnostic work is being carried out - should only receive a report of this if this work is being carried out for the first time.
 5. The report as meant in this Article should be re-submitted if material changes occur in the process or procedures which can have consequences for the health and safety of the employees; this will supersede previous reports.

Article 4.95. Accidents or incidents

Any accident or incident which has occurred and led or might have led to the release of one or more biological agents of categories 3 or 4 and which might cause contamination of employees through these agents, must be reported to the supervisor or another institution to be designated by Our Minister as soon as possible.

Article 4.96. Transfer of information

In the event of the employer terminating the operations, the register meant in Article 4.90 and the results of the occupational health medical examination meant in Article 4.91 - if they are stored by the employer - should be transferred to a supervisor designated to this end.

§ 7. Special provisions in connection with work other than microbiological diagnostic work in healthcare and in veterinary medicine

Article 4.97. Healthcare and veterinary medicine

1. In addition to Article 4.85, with respect to the risk assessment and evaluation of hazards associated with work other than microbiological diagnostic work in healthcare and in veterinary medicine, attention should be given to:
 - a. the uncertainty about the presence of biological agents and the hazards associated with patients or animals and with samples or material of patients or animals;
 - b. the hazards associated with the nature of the work.
2. Effective measures should be taken with respect to the work meant in the first paragraph for the protection of the health and safety of the employees involved. These measures in any event consist of:
 - a. formulating and announcing decontamination and disinfection procedures to the employees involved;
 - b. formulating and announcing procedures for the safe handling and removal of waste material contaminated with biological agents.
 - c. the provision of medical aids with built-in safety and protection mechanisms if there is a risk of injury or infection from a sharp medical aid;
 - d. the prohibition on replacing caps on hypodermic needles.

Article 4.98. Protective measures

In isolation departments for patients or animals infected or possibly infected with biological agents of

categories 3 or 4, suitable protective measures should be taken as meant in Annex V, column A, of the Directive.

§ 8. Special measures in laboratories, spaces for test animals and industrial processes

Article 4.99. Control levels in laboratories and spaces for test animals

1. In laboratories and in spaces where animals are situated which have been intentionally contaminated with biological agents of categories 2, 3 or 4 or animals which are or are possible carriers of biological agents of one of these categories, depending on the results of the risk assessment and evaluation as meant in Article 4.85, and with due observance of Article 16, first paragraph, of the Directive, at least the control levels 2, 3 and 4 of Annex V of the Directive should be observed.
2. If in the laboratories meant in the first paragraph work is being carried out with materials and it is uncertain whether they contain biological agents of categories 2, 3 or 4 and the work is not aimed at working with biological agents, at least control level 2 of Annex V of the Directive should be observed, with due observance of Article 16, first paragraph, of the Directive.

Article 4.100. Control levels of industrial processes

1. In the event of biological agents of categories 2, 3 or 4 being used in industrial processes, and depending on the results of the risk assessment and evaluation as meant in Article 4.85, and with due observance of Article 16, first paragraph, of the Directive, at least control levels 2, 3 and 4 of Annex VI of the Directive should be observed.
2. An industrial process meant in the first paragraph is present if there is an intention to work with biological agents of categories 2, 3 or 4 in reactor vessels of at least ten litres.

Article 4.101. Control levels for biological agents not mentioned in Annex III of the Directive

If work as meant in this division is being carried out with biological agents not classified by virtue of Annex III of the Directive into one of the categories meant in Article 4.48, third paragraph, but concerning which there are indications to expect that these agents should be classified into categories 3 or 4, control level 3 of Annex V or VI of the Directive should at least be observed.

§ 9. Special provisions concerning information and instructions

Article 4.102. Information and instruction

1. In addition to Article 8 of the Act, information and instructions should be given to employees carrying out work as meant in Article 4.86, first and second paragraph, which at least focus on:
 - a. the possible health hazards associated with working with biological agents;
 - b. the measures to be taken to avoid exposure;
 - c. the action to be taken in cases of accidents with biological agents;
 - d. the existing hygiene provisions;
 - e. wearing and using working clothes and personal protective equipment.
2. The information and instructions must be brought up-to-date should changed circumstances give rise to this.

Section 10. Special sectors and special categories of employees

§ 1. Transport

Article 4.103. Exceptions to means of transport

Article 4.54b, opening sentence and under a, does not apply to seagoing vessels.

§ 2. Young persons

Article 4.104. Linking provision

In addition to the provisions in or pursuant to this Chapter, the provisions and prohibitions mentioned in this division also apply to young employees.

Article 4.105. Working prohibitions for dangerous substances and biological agents

1. Young employees should not carry out work with or be exposed to substances meeting the criteria laid down pursuant to Article 9.2.3.1 of the Environmental Management Act for classification into one or more of the categories «very poisonous», «poisonous», «sensitising», «carcinogenic», «mutagenic» and «poisonous for procreation», as well as substances meeting the criteria in or pursuant to this Act for attribution of the R-sentences 33 and 48.
2. Young employees must not carry out work with or be exposed to biological agents of categories 3 or 4, meant in Section 9 of this Chapter.
3. In addition, young employees must not carry out work on or with barrels, basins, pipes or reservoirs containing one or more of the substances or biological agents meant in the first or second paragraph.

Article 4.106. Expert supervision of work with dangerous substances

Article 1.37, second paragraph, applies accordingly to young employees who:

- a. carry out work with substances meeting the criteria for classification determined pursuant to Article 9.2.3.1 of the Environmental Management Act:
 1. into one or more of the categories «explosive», «corrosive» and «irritating»;
 2. into the category «harmful» if these substances also meet the criteria laid down in or pursuant to the Environmental Management Act for attribution of the R phrase 40 or 68;
- b. carry out work with compressed gases, gases made liquid under compression, gases made liquid by large temperature drop and dissolved gases;
- c. carrying out work on or with barrels, basins, pipes or reservoirs containing one or more of the substances or gases meant under a or b;
- d. articles containing, manufacturing or handling explosives meant in Article 2.2, under e.

§ 3. Pregnant and breast-feeding employees

Article 4.107. Linking provision

In addition to the provisions set out in or pursuant to this Chapter the provisions mentioned in this division also apply to pregnant and breast-feeding employees.

Article 4.108. Work prohibitions for lead and lead compounds

Pregnant employees and breast-feeding employees are prohibited from carrying out work during which they might be exposed to metallic lead and its compounds.

Article 4.108. Exposure to dangerous substances

1. Employees who are pregnant or breast-feeding may not perform work in which they could be exposed to metallic lead and lead compounds.
2. Employees who are pregnant or breast-feeding may not perform work in which they could be exposed to dangerous substances that could harm the health of an unborn child or infant that is being breast-fed via a genotoxic mechanism that could reach the unborn child or breast-feeding infant via the mother.

Article 4.109. Work prohibitions for some biological agents

A pregnant employee is prohibited from carrying out work during which she might be exposed to the biological agents of Toxoplasmosis and Rubella virus meant in Section 9 of this Chapter unless it has become evident that she has immunity to them.

§ 4 [Repealed as of 01-07-2012]

Article 4.110. [Repealed as of 01-07-2012]

Article 4.111. [Repealed as of 01-07-2012]

Article 4.112. [Repealed as of 01-07-2012]

Article 4.113. [Repealed as of 01-07-2012]

Article 4.114. [Repealed as of 01-07-2012]

Article 4.115. [Repealed as of 01-07-2012]

Article 4.116. [Repealed as of 01-07-2012]

Chapter 5. Physical load

Section 1. Physical load

Article 5.1. Definition of Directive

In this Section the directive means: Directive no. 90/269/EEC of the Council of the European Communities of 29 May 1990 concerning the minimum health and safety requirements for the manual handling of loads where there is a risk particularly of back injuries to workers (OJ EC L 156).

Article 5.2. Preventing hazards

The work should be so organised, the workplace so fitted out, a production and working method so applied or such aids and personal protection devices should be used, that the physical load cannot cause any hazards to the health and safety of the employee.

Article 5.3. Restricting hazards and risk assessment and evaluation

Insofar as the hazards meant in Article 5.2 cannot reasonably be prevented:

- a. with due observance of Annex I of the Directive the work must be organised such, the workplace organised such, a production and work method applied such or aids and personal protective equipment used such that these hazards are restricted as much as is reasonably possible;
- b. during the risk assessment and evaluation meant in Article 5 of the Act, with due observance of Annex I of the Directive, the health and safety aspects of the physical load should be assessed with particular focus on the characteristics of the load, the physical effort required, the characteristics of the work environment and the requirements of the task.

Article 5.4. Ergonomic organisation of workplaces

Unless this cannot reasonably be required, workplaces must be organised in accordance with ergonomic principles.

Article 5.5. Information

1. To employees carrying out work by manually handling loads, with due observance of the Annexes I and II of the Directive, effective information and effective instructions should be given on:
 - a. the manner in which loads are to be handled;
 - b. the hazards to their health and safety associated with the manual handling of loads and the measures to be taken to restrict these hazards as much as possible.
2. Adequate information should be given to the employees involved about the weight of the load to be handled and - when the weight of the load is not evenly divided - about the centre of gravity or the heaviest side of this load.

Article 5.6. Annexes of the Directive

Annexes I and II of the Directive should be observed with respect to physical loads.

Section 2. VDU-activities

Article 5.7. Definitions

In this Section the following terms mean the following:

- a. VDU: an alpha-numerical or graphical screen regardless of the imaging process used;
- b. VDU workstation: the whole consisting of VDU equipment, should the occasion arise provided with a keyboard or provision for data input and or the software determining the interface between man and his machine, optional accessories, peripheral equipment, telephone, modem, printer, document holder, chair, desk or worktop as well as the direct work environment.

Article 5.8. Applicability

1. This Section does not apply to:
 - a. operating stations on machines;
 - b. computer systems intended primarily for use by the public;
 - c. so-called portable systems not continuously in use on a workstation;
 - d. calculating machines, cash tills and other equipment provided with a small display for information or quantities and required for the direct use of this equipment.
2. Neither does this Section apply to work whereby an employee usually uses a VDU less than two hours in every 24-hours.

Article 5.9. Risk assessment and evaluation

1. In the risk assessment and evaluation meant in Article 5 of the Act, specific attention should be given to the visual hazards and hazards of physical and psychological stress as a result of working with a VDU.
2. Based on the outcomes of the risk assessment and evaluation meant in the first paragraph, effective measures should be taken to overcome the respective hazards taking into account the consequences of these hazards and their mutual correlation.

Article 5.10. Work schedule

The work on a VDU should be organised in such a manner that this work is alternated with other work or by a break after not more than two consecutive hours to the extent that the load of performing the work on a VDU is lightened.

Article 5.11. Measures concerning the protection of the eyes and sight of the employees

1. Each employee entrusted for the first time with work on a VDU, should in addition to Article 18 of the Act be given the opportunity to submit to a suitable health examination of the eyes and sight before commencing this work and from time to time thereafter.
2. The employee should be given the opportunity to submit again to an examination as meant in the first paragraph if he is suffering from visual disorders which might be the result of working with VDUs.
3. If necessary because of the results of the examination meant in the first and second paragraph, the employee involved should be given the opportunity to submit to an ophthalmological examination.
4. If necessary because of the results of the examination meant in the first to the third paragraph and if normal means of eye-correction cannot be used, the employee involved should be given special means of eye-correction in connection with the respective work.

Article 5.12. Provisions for the organisation of VDU workstations

Without prejudice to Article 5.4 detailed provisions will be laid down by Ministerial Order with respect to the VDU workstation and the interaction between the equipment used and the employees.

Section 3. Special sectors and special categories of employees

§ 1. Transport

Article 5.13. Applicability

Section 2 of this Chapter does not apply to:

- a. the operating position on a vehicle on a public road or railway;
- b. computer systems in an aircraft, a seagoing vessel or inland vessel or a vehicle on a public road or railway.

§ 2. Pregnant and breast-feeding employees

Article 5.13a Physical load

Employees who are pregnant or breast-feeding may not:

- a. Squat, kneel, bend or operate foot pedals standing more than once an hour during the final three months of a pregnancy;
- b. Lift more than 10 kilograms in one action throughout the pregnancy or in the three-month period after giving birth;
- c. Lift weights of more than 5 kilograms more than 10 times a day from the 20th week of the pregnancy; or

- d. Lift weights of more than 5 kilograms more than five times per day from the 30th week of the pregnancy.

§ 3 [Repealed as of 01-07-2012]

Article 5.14. [Repealed as of 01-07-2012]

Article 5.15. [Repealed as of 01-07-2012]

Chapter 6. Physical factors

Section 1. Temperature and ventilation

Article 6.1. Temperature

1. Taking into account the nature of the activities carried out by the employees and the physical load resulting from them, the temperature at the workplace should not cause damage to the health of the employees.
2. If because of the temperature in the workplace or by unfavourable weather conditions damage can still be caused to the health of the employees, personal protective equipment should be made available. If the personal protective equipment made available cannot prevent the damage to health, the duration of the work should be restricted in its extent or the work be alternated frequently by a temporary stay in a place where there is a temperature as meant in the first paragraph, so that no damage to health is caused.

Article 6.2. Ventilation

1. Sufficient non-polluted air should be present in the workplace.
2. Ventilation installations should always be ready for operation.
3. Ventilation installations should function such that employees are not subjected to inconvenient draughts.
4. Ventilation installations should be supplied with a control system which detects faults in the installation insofar as this is necessary for the health of the employees.
5. The first paragraph does not apply to workplaces in a building as meant in Article 1, paragraph one, under c, of the Housing Act.
6. A workplace in a building as meant in Article 1, first paragraph under c, of the Housing Act may only be used if the building complies with the rules laid down in or pursuant to the Buildings Decree 2012 with regard to the applicable designated use within the sense of that Decree.

Section 2. Lighting

Article 6.3. Daylight and artificial light

1. Workplaces and connecting roads must be illuminated such that the light present does not create a risk to the health and safety of the employees.
2. Insofar as this is possible sufficient daylight should enter workplaces and sufficient provisions for artificial lighting should be present.
3. The provisions for artificial lighting should be fitted in such a manner that danger of accidents is prevented.

4. The colour used for artificial lighting should not change or affect the observation of the health or safety signs provided for in or pursuant to Section 2 of Chapter 8.

Article 6.4. Keeping out sunlight

In an enclosed space where people are working, direct sunlight which shines in may be kept out.

Section 3. Noise

§ 1. General

Article 6.6. Definitions

In this Section the following terms have the following meaning:

- a. peak noise pressure (P_{peak}): maximum value of the «C» frequency-weighted momentary noise pressure;
- b. daily exposure to noise ($L_{\text{EX},8\text{h}}$) (dB(A) re. 20 μPa): time-weighted average of the levels of exposure to noise on a nominal working day of eight hours as defined in the international ISO standard 1999:1990, point 3.6. This includes all noises present at work including impulse noises;
- c. weekly exposure to noise ($L_{\text{EX},8\text{h}}$): time-weighted average of the daily levels of exposure to noise in a nominal week of five working days of eight hours as defined in the international ISO standard 1999:1990, point 3.6 (note 2).

§ 2. Provisions with regard to noise

Article 6.7. Detailed provisions for risk assessment and evaluation, assessment and measuring

1. In connection with the risk assessment and evaluation meant in Article 5 of the Act, the noise levels to which the employees are exposed, should be assessed and - if necessary - measured in order to determine where and to what extent the employees can be exposed to the harmful noise levels determined in Article 6.8.
2. In addition to Article 5 of the Act the assessment and the measuring must be carried out periodically by the experts mentioned in Article 13 of the Act or the experts or health and safety services mentioned in Articles 14 and 14a of the Act in accordance with a time schedule laid down in writing and must in any event be carried out again if there is a fundamental change in circumstances, if there are reasons to assume that the assessment or measuring carried out is inaccurate or when the results of the occupational health medical examination as meant in Article 6.10, first to third paragraph, give rise to it. With regard to the assessment of the measuring results the measuring uncertainties determined in accordance with the usual practice applied during measuring must be taken into account.
3. The methods and equipment used during the measurement should be in line with the respective circumstances. In particular, the characteristics of the noise to be measured, the duration of the exposure, the environmental factors and the characteristics of the measuring equipment should be concentrated on. The methods and devices used should be suitable in order to determine whether the harmful noise levels determined in Article 6.8, third, fourth, seventh, ninth and tenth paragraph have or have not been exceeded. When random checks are used, they must be representative of the personal exposure of an employee.
4. At the assessment meant in the first paragraph, the following are in any event to be concentrated on:
 - a. the level, nature and duration of the exposure including any exposure to impulse noise;
 - b. the action values determined in Article 6.8, third, fourth, seventh and ninth paragraph and the limit values for exposure determined in Article 6.8, tenth paragraph;
 - c. the possible consequences for the health and safety of the employees forming part of the specially sensitive risk group;

- d. insofar as this is technically feasible, the possible consequences for the health and safety of the employees and the interaction between noise and work-related ototoxic substances and between noise and vibrations;
 - e. the possible indirect consequences for the health and safety of the employees of the interaction between noise and warning signals or other noises which should be monitored in order to reduce the risk of accidents;
 - f. the information about the noise emission supplied by the manufacturers of the work equipment;
 - g. the existence of alternative work equipment designed to reduce the noise emission;
 - h. the continuation of the exposure to noise outside normal working hours under the employer's responsibility;
 - i. relevant information derived from the occupational health medical examination as meant in Article 6.10, first to third paragraph, including published information insofar as this is possible;
 - j. the availability of individual ear protectors with sufficiently deadening effect.
5. The Works Council or the staff representation body or, failing these, the interested employees, should be given the opportunity to express their opinion on the manner of assessment and measurement.
 6. The results of the assessments and measurements carried out under this Article should be recorded in a suitable form and retained so that it is possible to consult them at a later stage.
 7. The results meant in the sixth paragraph and an explanation of them should be brought to the notice of the works council or the staff representation body or, failing these, to the interested employees.
 8. The risk assessment and evaluation meant in the first paragraph must be adequately documented and should state the measures taken pursuant to Articles 6.8, 6.9 and 6.11.

Article 6.8. Measures to prevent or restrict the exposure

1. In order to prevent or restrict the exposure to noise, technical or organisational measures must be taken such that the risks of exposure are removed at source or restricted to a minimum taking into account technical progress and the availability of measures.
2. In preventing or restricting the exposure meant in the first paragraph, the following are in any event taken into account:
 - a. alternative working methods resulting in less exposure to noise;
 - b. the choice of the right work equipment taking into account the work to be carried out, making the lowest possible noise including the possibility of letting the employees use work equipment which has the aim or the consequence of a restriction of the exposure to noise;
 - c. the design and organisation of the workstation and the workplace;
 - d. suitable information and effective instructions to teach the employees how to use work equipment properly in order to restrict the exposure to noise to a minimum;
 - e. technical measures to restrict noise;
 - i. restriction of the airborne noise, for instance by screening off, encasement or covering with sound-absorbing materials;
 - ii. restriction of construction noises for instance by deadening or insulation;
 - f. suitable maintenance programmes for the work equipment, the workstation and the systems at the workstation;
 - g. the organisation of the activities with a view to a restriction of the noise:
 - i. restriction of the duration and intensity of the exposure;
 - ii. suitable work schedules with sufficient breaks.
3. If the daily exposure to noise exceeds 85 dB(A) or the peak noise pressure exceeds 140 Pa, on the basis of the assessment and measuring meant in Article 6.7, first paragraph, with due observance of the measures meant in the second paragraph, in connection with the plan of action meant in Article 5 of the Act, technical or organisational measures must be determined and implemented in order to restrict the exposure to a minimum.

4. Workplaces where the daily exposure to noise can exceed 85 dB(A) or the peak noise pressure can exceed 140 Pa, should be clearly indicated by means of suitable signs and effectively demarcated. If this is technically feasible and it is justified by the risk of exposure, the access to these workplaces should be restricted.
5. The exposure to noise in recreation rooms as meant in Article 3.20 and the night rooms as meant in Article 3.21 must be restricted to a level that is compatible with the function of the rooms and the circumstances in which they are used.
6. The measures meant in the first to the fifth paragraph should be geared to the needs of the employees who are part of the specially sensitive risk groups.
7. In cases where the daily exposure to noise exceeds 80 dB(A) or the peak noise pressure exceeds 112 Pa suitable individual properly made to measure ear protectors must be provided to the employees. The individual ear protectors must prevent the risk of hearing impairment or should reduce this risk to a minimum.
8. The Works Council or the staff representation body or, failing these, the interested employees must be given the opportunity to express their opinion about the measures meant in the first to the fifth paragraph and about the choice of the individual ear protectors to be provided, as meant in the seventh paragraph.
9. If the daily exposure to noise is at least 85 dB(A) or the peak noise pressure is at least 140 Pa, individual ear protectors must be worn by the employees.
10. The daily exposure to noise, taking into account the deadening effect of the individual ear protectors worn by the employee, should in any event not exceed 87 dB(A) or the peak noise pressure should in any event not exceed 200 Pa.
11. If despite all the measures meant in the first to the seventh and ninth paragraph it is established that the daily exposure to noise, taking into account the deadening effect of the individual ear protector worn by the employee, exceeds the limit values determined in the tenth paragraph, the following must take place:
 - a. measures should be taken immediately to reduce the exposure to a level below the limit values;
 - b. the causes of the excessive exposure must be determined; and
 - c. the measures meant in the first to the seventh and ninth paragraph must be adjusted to prevent a repeat.

Article 6.9. Weekly average

In cases where the employees in connection with the performance of special tasks have to stay at a workplace where the daily exposure to noise per working day differs considerably and compliance with the obligations mentioned in Article 6.8, third, fourth, seventh, ninth, tenth and eleventh paragraph cannot reasonably be required, in the paragraphs of the Articles mentioned «the daily exposure to noise» should be read as «the weekly exposure to noise». In that case the weekly exposure, taking into account the deadening effect of the individual ear protectors worn by the employee, should not exceed 87 dB(A) and suitable measures should be taken to restrict the risk associated with these activities to a minimum.

Article 6.10. Audiometric examination

1. If it appears from the results of the assessment and measuring meant in Article 6.7, first paragraph, that an employee is running a health risk, this employee must be given the opportunity, in addition to Article 18 of the Act, to submit to an occupational health medical examination in the form of an audiometric examination.
2. Any employee submitted to a daily noise exposure of more than 85 dB(A) or peak noise pressure exceeding 140 Pa must be given the opportunity to submit periodically to an occupational health

medical examination in the form of an audiometric examination.

3. Any employee submitted to a daily noise exposure of more than 80 dB(A) or peak noise pressure exceeding 112 Pa must be given the opportunity to submit periodically to an occupational health medical examination in the form of an audiometric examination if it appears from the assessment and measuring meant in Article 6.7, first paragraph, that there is a health risk.
4. The audiometric examination meant in the first to the third paragraph, must be focussed on an early diagnosis of any decline in hearing as a result of noise and to retaining the hearing.
5. The expert person meant in Article 2.14a, second paragraph, or the health and safety service must maintain a personal medical file for each employee who has submitted to an audiometric examination as meant in the first to the third paragraph, which includes a summary of the results of the audiometric examination meant in the first to the third paragraph.
6. The personal medical files must be retained in a form such that they can be consulted at a later stage with due observance of the medical professional secrecy.
7. Every employee is entitled to inspect his medical file.
8. A designated supervisor should receive on request a copy of the medical files meant in the fifth paragraph.

Article 6.10a. Measures taken on hearing impairment

1. If at an audiometric examination as meant in Article 6.10, first to third paragraph, a demonstrable hearing impairment of an employee has been determined, the expert person meant in Article 2.14a, second paragraph, or a specialist if required by the expert, should assess whether the damage is probably the result of exposure to noise at work.
2. If it is determined that the hearing impairment is caused by exposure to noise at work:
 - a. the assessment and measuring meant in Article 6.7, first paragraph, will be carried out again;
 - b. the measures to prevent or restrict the exposure meant in Article 6.8 must be reviewed;
 - c. in taking the measures to prevent or restrict the exposure as meant in Article 6.8, including providing other work without exposure risk, the advice of the expert meant in Article 2.14a, second paragraph, or the designated supervisor should be taken into account; and
 - d. every employee who is exposed in a similar manner should be given the opportunity to submit in the meantime to an occupational health medical examination in the form of an audiometric examination.

Article 6.11. Information and instruction

Suitable information and effective instructions should be given to employees exposed to a daily exposure to noise of at least 80 dB(A) and a peak noise pressure of at least 112 Pa with regard to the following:

- a. the nature and risks resulting from exposure to noise;
- b. the measures taken, as meant in Article 6.8, to prevent the risks meant under a or to restrict them to a minimum;
- c. the action values meant in Article 6.8, third, fourth, seventh and ninth paragraph and the limit values meant in Article 6.8, tenth paragraph;
- d. the results of the assessment and measuring of the noise levels to which the employees are exposed as meant in Article 6.7, first and second paragraph, and an explanation of the meaning and associated risks, if any;
- e. the correct use of individual ear protectors;
- f. how signs of hearing impairment can be detected and notified;
- g. the circumstances in which employees are entitled to an occupational health medical examination and the aim of this examination; and

- h. safe working methods to restrict exposure to noise to a minimum.

Section 3a. Vibrations

§ 1. General

Article 6.11a. Definitions, limit values and action values

1. In this Section the following terms have the following meaning:
 - a. Directive: Directive No. 2002/44/EC of the European Parliament and the Council of the European Union of 25 June 2002 on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (vibration) (OJ EC L 177);
 - b. hand-arm vibrations: mechanical vibrations which when transmitted to the hand-arm system of humans, entail a health and safety risk for the employees in particular vascular, bone or joint, nerve or muscle disorders;
 - c. body vibrations: mechanical vibrations which when transmitted to the whole body, entail a health and safety risk for the employees in particular disorders in the lower back and damage to the spine;
2. For the hand-arm vibrations:
 - a. the limit value for daily exposure, converted to a standard reference period of eight hours, is determined at 5m/s^2 ;
 - b. the action value for daily exposure, converted to a standard reference period of eight hours, is determined at 2.5m/s^2 ;
3. For body vibrations:
 - a. the limit value for daily exposure, converted to a standard reference period of eight hours, is determined at 1.15 m/s^2 ;
 - b. the action value for daily exposure, converted to a standard reference period of eight hours, is determined at 0.5 m/s^2 ;

§ 2. Provisions with regard to vibrations

Article 6.11b. Detailed provisions for risk assessment and evaluation, assessment and measuring

1. In connection with the risk assessment and evaluation meant in Article 5 of the Act, the mechanical vibration levels to which the employee is exposed, must be assessed and if necessary measured.
2. The assessment and measuring must be planned with due care and carried out at suitable intervals.
3. The assessment and measuring for hand-arm vibrations must be carried out in accordance with points 1 and 2 of part A and for body vibrations in accordance with points 1 and 2 of part B of the Annex of the Directive.
4. The results of the measuring must be retained in a suitable form so that they can be consulted at a later stage.
5. The assessment should at least include the following aspects:
 - a. the level, nature and duration of the exposure including any exposure to periodic vibrations or repeated shocks;
 - b. the limit values and action values for the exposure determined, as meant in Article 6.11a, second and third paragraph;
 - c. possible consequences for the health and safety of employees with an increased risk;
 - d. possible indirect consequences for the safety of employees caused by the interaction between

- e. the information supplied by manufacturers of the work equipment;
 - f. the existence of replacement material which is designed to reduce the levels of exposure to mechanical vibrations;
 - g. continuation of the exposure to body vibrations outside normal working hours under the employer's responsibility;
 - h. special working conditions such as working at low temperatures;
 - i. relevant information obtained via occupational health medical examinations meant in Article 6.11e, including published information insofar as this is possible.
6. The assessment should regularly be reviewed, in any event if changed circumstances or results of the occupational health medical examinations meant in Article 6.11e give rise to it.

Article 6.11c. Preventing or restricting harmful vibrations

1. If the action values meant in Article 6.11a, second paragraph under b, and the third paragraph under b, are or can be exceeded, with due observance of Article 3, first paragraph under b, of the Act, attention should be given to the following points in the risk assessment and evaluation meant in Article 5 of the Act and in the associated plan of action:
- a. alternative working methods reducing the necessity of exposure to mechanical vibrations;
 - b. the choice of the right work equipment, properly ergonomically designed and causing the least possible vibrations taking into account the work to be carried out;
 - c. providing aids to prevent the risk of damage to health as a result of vibrations;
 - d. suitable maintenance programmes for the work equipment, the workplace and the systems at the workplace;
 - e. the design and lay-out of the workplace;
 - f. adequate information and instructions to the employees so that they use the work equipment safely and correctly such that the exposure to mechanical vibrations is as low as possible;
 - g. restriction of the duration and intensity of the exposure;
 - h. suitable work schedules with sufficient breaks;
 - i. providing clothing protecting the exposed employees against cold and damp.
2. Employees should not be exposed to vibrations above the limit value for exposure meant in Article 6.11a, second paragraph under a, and third paragraph under a.
3. If nevertheless the limit value has been exceeded:
- a. measures should immediately be taken to reduce the exposure to below the limit value for exposure;
 - b. the cause of exceeding the limit value must be investigated;
 - c. the protection and prevention measures must be adjusted to prevent the limit value being exceeded again.
4. The employer must tailor the measures to the needs of the high-risk employees.

Article 6.11d. Information and instruction

Suitable information and effective instructions should be given to employees who are exposed to risks in connection with mechanical vibrations at work about the following:

- a. measures taken to remove or restrict to a minimum the risks in connection with mechanical vibrations;
- b. the limit values and action values for exposure;
- c. the results of the assessments and measuring of mechanical vibrations carried out in accordance with Article 6.11b and the damage to health which the work equipment used may cause;
- d. the use of the method for detecting and reporting symptoms of damage to health;
- e. the circumstances in which the employees are entitled to an occupational health medical

- examination;
- f. safe working methods to restrict exposure to mechanical vibrations to a minimum.

Article 6.11e. Occupational health medical examination with regard to vibrations

1. Any employee who is entrusted with activities for the first time which as appears from the assessment meant in Article 6.11b, first paragraph, might cause hazards to health and safety, should as an addition to Article 18 of the Act be given the opportunity to submit to an occupational health medical examination before commencing the work.
2. If the employee is found to have a disorder which could be the result of exposure to mechanical vibrations, employees who have been exposed in a similar way to mechanical vibrations should in the meantime be given the opportunity to submit to an occupational health medical examination.
3. The occupational health medical examination can be re-taken at the request of the employer or the employee involved. The results of the re-taken examination replace the previous one.
4. If an employee is found to have a demonstrable illness or harmful effect to health as a result of exposure to mechanical vibrations, he must be informed by the expert as meant in Article 2.14a, second paragraph, or the health and safety service about the manner in which he is given the opportunity after the termination of the exposure to submit to an occupational health medical examination.

Section 4. Radiation

Article 6.12. Appliances

1. Appliances which may radiate harmful, non-ionising electromagnetic radiation should consist of sound materials, be properly constructed and be in a good condition.
2. The appliances meant in the first paragraph should be situated in such a space and also fitted out, installed or screened off in such a manner that during their operation any damage to health will be prevented as much as possible.
3. If during the operation of an appliance as meant in the first paragraph, the hazard of damage to health cannot be prevented or not entirely despite compliance with the provisions meant in paragraph one and two, measures should be taken such that the damage to health is prevented as much as possible.
4. If the measures meant in the third paragraph cannot or cannot sufficiently prevent damage to health, personal protective equipment should be made available.
5. The personal protective equipment should be used by the employees during their work.
6. Levels can be determined by Ministerial Order above which for the purposes of this Article this radiation is deemed to be harmful.
7. This Article does not apply to appliances that can emit optical radiation, within the meaning of Section 4a of this Chapter.

Section 4a. Artificial optical radiation

§ 1. General

Article 6.12a. Definitions

In this section, the terms below have the following meaning:

- a. *Directive*: Directive 2006/25/EC of the European Parliament and of the Council of the European Union of 5 April 2006 on the minimum health and safety requirements regarding the exposure of workers to risks arising from physical agents (artificial optical radiation) (19th individual Directive within the meaning of Article 16 (1) of Directive 89/391/EEC) (OJ CE L 114);
- b. *optical radiation*: electromagnetic radiation in the wavelength range between 100 nm and 1 mm, where the spectrum of the optical radiation is divided into ultraviolet radiation, visible radiation and infrared radiation;
- c. *ultraviolet radiation*: optical radiation in the wavelength range between 100 nm and 400 nm, where the ultraviolet region is divided into UVA (315 nm – 400 nm), UVB (280 nm – 315 nm) and UVC (100 nm – 280 nm);
- d. *visible radiation*: optical radiation in the wavelength range between 380 nm and 780 nm;
- e. *infrared radiation*: optical radiation in the wavelength range between 780 nm and 1 mm, where the infrared region is divided into IRA (780 nm – 1400 nm), IRB (1400 nm – 3000 nm) and IRC (3000 nm – 1 mm);
- f. *artificial optical radiation*: optical radiation that does not originate from natural sources;
- g. *laser*: device with the capacity to produce or strengthen electromagnetic radiation in the wavelength range of optical radiation, mainly by means of controlled stimulated emission;
- h. *laser radiation*: optical radiation originating from a laser;
- i. *non-coherent radiation*: any optical radiation other than laser radiation;
- j. *exposure limit values*: limits for the exposure to optical radiation that are based directly on established effects on health and on biological considerations;
- k. *irradiation power (E) or capacity density*: the incident capacity of radiation per unit of surface area expressed in watts per square metre (Wm^{-2});
- l. *radiant exposure (H)*: the time integral of the irradiation power expressed in joules per square metre (Jm^{-2});
- m. *radiance (L)*: the radiant flux or power output per unit of solid angle expressed in watts per square metre per steradian ($Wm^{-2}sr^{-1}$);
- n. *level*: the combination of irradiation power, radiant exposure and radiance to which a worker is exposed.

Article 6.12b. Area of application

This section refers to work during which workers are or can be exposed to artificial optical radiation to such a degree that it can represent a risk to health and safety due to adverse effects on the eyes or skin.

Article 6.12c. Exposure limit values

When implementing the regulations in this section, the following exposure limit values apply:

- a. the exposure limit values to incoherent radiation, other than those that are irradiated by natural sources of optical radiation, specified in Annex I to the Directive;
- b. the exposure limit values to laser radiation, specified in Annex II to the Directive.

§ 2. Regulations regarding artificial optical radiation

Article 6.12d. Further regulations for risk assessment and evaluation, assessment, measurement and calculation

1. In the context of the risk assessment and evaluation specified in Article 5 of the Act, the levels of optical radiation to which the workers will probably be exposed will be assessed and, if necessary, measured or calculated.
2. The assessment, measurement and calculation activities, as referred to in the first paragraph, are conducted in accordance with the standards of the International Electrotechnical Commission for laser radiation and the recommendations of the International Commission on Illumination and the European Commission for Standardisation for incoherent radiation.

3. In exposure situations not covered by the standards and the recommendations specified in the second paragraph, assessment, measurement and calculation will be conducted in accordance with scientifically-based standards to be designated by Ministerial Order.
4. In the exposure situations specified in the second and third paragraphs, during the assessment the information specified by the producer of the work equipment may be taken into account when that work equipment falls under a relevant Community directive.
5. The assessment, measurement and calculation activities, as referred to in the first paragraph, will be scheduled in a professional way and will be conducted with appropriate frequency by the experts specified in Article 13 of the Act, or by the experts or Health and Safety Executives specified in Articles 14 and 14a of the Act, and in any case will be repeated if the circumstances have changed radically or if the results of the occupational health and safety examination specified in Article 6.12g necessitate this.
6. The results of the assessments, measurements and calculations conducted in pursuance of this Article will be registered and stored in the appropriate format so that they can be consulted at a later date.
7. The Works Council or the staff representation or, in the absence thereof, the workers in question will be given the opportunity to express their opinions about the assessment, measurement and calculation method specified in the first paragraph.
8. The results referred to in the sixth paragraph will be accompanied with an explanation and brought to the attention of the Works Council or the staff representation or, in the absence thereof, the workers in question.
9. During the risk assessment and evaluation, as referred to in Article 5 of the Act, attention will be paid in any case to the following:
 - a. the level, the wavelength ranges and the duration of the exposure to artificial sources of optical radiation;
 - b. the exposure limit values;
 - c. possible consequences for the health and safety of workers belonging to particularly sensitive risk groups;
 - d. possible consequences for the health and safety of workers from interaction at the workplace between optical radiation and photosensitising chemical substances;
 - e. possible indirect effects, such as temporary blindness, explosion, or fire;
 - f. the existence of replacement work equipment designed to reduce the levels of exposure to artificial optical radiation;
 - g. the relevant information obtained by means of the occupational health and safety examinations referred to in Article 6.12g, including published information, insofar as that is possible;
 - h. multiple sources of exposure to artificial optical radiation;
 - i. a classification applied to lasers as defined in accordance with the relevant standard of the International Electrotechnical Commission, as well as similar classifications with respect to artificial sources likely to inflict similar damage to that of lasers of class 3B or 4; and
 - j. the information supplied by the producer of sources of optical radiation and related work equipment in accordance with the relevant Community directives.
10. The risk assessment and evaluation specified in the first paragraph will be adequately documented and will specify the measures taken in pursuance of Articles 6.12e and 6.12f.

Article 6.12e. Measures to prevent or limit exposure

1. The appropriate technical or organisational measures will be taken to remove or minimise the risks of exposure to artificial optical radiation, taking account of technical advances and the possibility to take measures to control the risk at the source.
2. If the assessment or calculation referred to in Article 6.12d, first paragraph, shows that it is in any

way possible for the exposure limit values to be exceeded, in the framework of the plan of action referred to in Article 5 of the Act, technical or organisational measures will be determined and implemented to prevent the exposure limit values from being exceeded, with in any case regard for the following:

- a. alternative working methods that reduce the risk of optical radiation;
 - b. the option to use work equipment that emits less optical radiation, taking account of the work to be carried out;
 - c. technical measures to limit the emission of optical radiation using locking, shielding or similar mechanisms to protect health, where necessary;
 - d. appropriate maintenance programmes for the work equipment, the workplace and the systems at the workplace;
 - e. the design and layout of the workplace;
 - f. restriction of the duration and level of exposure;
 - g. the availability of appropriate personal protective equipment;
 - h. the instructions of the manufacturer of the work equipment when these fall under a relevant Community directive.
3. Workplaces in which workers are or can be exposed to levels of optical radiation from artificial sources that exceed the exposure limit values will be clearly indicated by means of the appropriate signs. If technically feasible and if there is a risk that the exposure limit values will be exceeded, the workplaces will be screened off and access to them will be restricted.
 4. Workers must not be exposed to artificial optical radiation above the exposure limit values. If the exposure limit values are nevertheless exceeded:
 - a. the employer will immediately take measures to reduce the exposure so that it is under the exposure limit values;
 - b. the employer will check why the exposure limit values were exceeded;
 - c. the employer will adapt the measures specified in the first and second paragraphs to prevent the exposure limit values from being exceeded again.
 5. The measures referred to in paragraph one up to and including paragraph four will be adapted to the needs of workers belonging to particularly sensitive risk groups.
 6. The Works Council or the staff representation or, in the absence thereof, the workers in question will be given the opportunity to express their opinions about the measures taken in pursuance of this Article.

Article 6.12f. Information and instruction

1. Workers that are exposed to risks related to artificial optical radiation will be provided with all the necessary information and instruction regarding the results of the assessment, measurement and calculation as referred to in Article 6.12d, first paragraph.
2. Workers will in any case be given information and instruction about the following:
 - a. measures taken in pursuance of this section;
 - b. the exposure limit values and the related potential dangers;
 - c. the results of the assessment, measurement and calculation referred to in Article 6.12d, first paragraph, together with an explanation of the meaning and the potential dangers thereof;
 - d. the method used to pinpoint and report the harmful effects on health of the exposure;
 - e. the circumstances under which workers are entitled to an occupational health and safety examination;
 - f. safe working methods to minimise the risks of exposure; and
 - g. proper use of appropriate personal protective equipment.

Article 6.12g. Occupational health and safety examination

1. If a worker is exposed to optical radiation above the exposure limit values, supplementary to Article 18 of the Act, he or she will be given the opportunity to undergo an occupational health and safety examination. This examination will also be offered when it has been ascertained that the worker is suffering from a recognisable illness or is experiencing harmful effects to health that are adjudged by an expert as referred to in Article 2.14a, second paragraph, or a health and safety service to be the result of exposure to artificial optical radiation at work.

In both cases, if the exposure limit values have been exceeded or if harmful consequences for a person's health, including illness, have been determined:

- a. workers will be informed by the expert referred to in Article 2.14a, second paragraph, or the health and safety service about the result that affects them personally. In particular, they will be given information and advice about the occupational health and safety examination after cessation of the exposure.
 - b. the employer will be notified of any significant findings of the occupational health and safety examination,
 - c. it is the employer's task to:
 - 1°. repeat the assessment, measurement and calculation activities referred to in Article 6.12d, first paragraph;
 - 2°. review the measures taken by him in pursuance of Article 6.12e;
 - 3°. take heed of the advice of the expert specified in Article 2.14a, second paragraph, or the health and safety service when implementing the measures required to eliminate or reduce the risk in accordance with Article 6.12e;
 - 4°. facilitate a further occupational health and safety examination and an evaluation of the health of all other workers that were exposed in a similar way to optical radiation. In those cases, the expert referred to in Article 2.14a, second paragraph, or the health and safety service can propose that the workers that were exposed to optical radiation be subjected to a medical examination.
2. For every worker who undergoes an occupational health and safety examination as referred to in the first paragraph, an individual medical dossier will be compiled; this dossier will be updated regularly. The medical dossiers will contain a summary of the results of the occupational health and safety examination that was conducted. The medical dossiers will be stored in a suitable format so that they can be consulted at a later date.
 3. The employer will take appropriate measures to guarantee that the expert referred to in Article 2.14a, second paragraph, or the health and safety service has access to the results of the assessment, measurement and calculation activities specified in Article 6.12d, first paragraph.
 4. All workers are entitled to view the results that relate to them.

Section 5. Working under excess pressure

Article 6.13. Definitions and applicability

1. In the provisions of or pursuant to this Section the following terms have the following meaning:
 - a. diving work: carrying out work in a liquid or a dry diving bell including the stay in this liquid or in this dry diving bell whereby for the purposes of breathing a gas is used under a higher pressure than atmospheric pressure;
 - b. caisson work: carrying out work in a space under pressure of at least 10^4 Pa above atmospheric pressure fully or partially surrounded by liquid as well as the stay in and the transport to and from this space;
 - c. other work under excess pressure: carrying out work other than diving or caisson work in a space under pressure of at least 10^4 Pa above atmospheric pressure including the stay in this space.

2. This Section also applies to the work in or on a seagoing vessel directly linked to the work to be carried out under excess pressure.
3. Articles 6.14 and 6.15, paragraph one, under a and b and d, apply exclusively to diving work with a Self- Contained Underwater Breathing Apparatus (SCUBA), consisting of the instructions for sport divers up to a diving depth of not more than 50 metres with a decompression time of not more than 20 minutes and with a partial oxygen pressure in the breathing gas of not more than 1.4, 10⁵ Pa.

Article 6.14. Suitability

Diving work, caisson work and other work under excess pressure should be carried out by persons in a physical and mental condition such as to be able to be aware of the dangers associated with the work they are to carry out and to prevent or restrict these dangers where possible.

Article 6.14a. Occupational health medical examination

1. Persons entrusted with diving work, caisson work and other work under excess pressure are to be submitted to an occupational health medical examination before the start of that work aimed at the special health hazards to which they might be exposed in the performance of that work.
2. After a period of not more than twelve months after the examination meant in the first paragraph, the occupational health medical examination should be repeated and thereafter each time with an interval of not more than twelve months since the previous examination.
3. The occupational health medical examination meant in the first and second paragraph must be carried out by a physician in the possession of a diving physician certificate issued by our Minister or a certifying institution.
4. Detailed provisions concerning the performance of the occupational health medical examination will be laid down by a Ministerial Order. These provisions may relate to:
 - a. the information submitted at the examination;
 - b. the manner in which the examination is carried out;
 - c. the manner of assessment whether the persons are suitable or not for performing diving work, caisson work or other work under excess pressure;
 - d. the manner of recording, processing and retaining the information derived from the examination and also how long this will be retained.
5. A person should only perform diving work, caisson work or other work under pressure if it is evident from the occupational health medical examination that performing this work is acceptable on medical grounds. If it appears from the findings of the occupational health medical examination that performing diving work, caisson work or other work under excess pressure is only acceptable under the restricting provisions indicated therein, these provisions should be observed.
6. At the request of the employer or the person examined, the examination meant in this Article can be carried out again once by another physician who is in the possession of a diving physician certificate as meant in the third paragraph. The result of the re-examination replaces the previous one.

Article 6.14b. Diving physician

1. In connection with carrying out the occupational health medical examinations as meant in Article 6.14a, first and second paragraph, various professional skills, training or registration requirements for the issue of the diving physician certificate meant in Article 6.14a, third paragraph can be set in a Ministerial Order.

Article 6.15. Safety measures

1. If the diving work, caisson work or other work under excess pressure is undertaken, the following

should be adhered to with due observance of the latest technology and taking into account the specific work to be carried out:

- a. proper written work instructions should be present close to the place where the work is being carried out which at least contain the safety measures to be taken by the employees as well as the emergency procedures;
 - b. sound materials in good conditions and sufficient breathing gas of good quality should be made available to the employees;
 - c. a person specifically trained for this purpose should be present close to the place where the work is being carried out and be able to give adequate medical guidance to the employees;
 - d. adequate first-aid equipment should be present close to the place where the work is being carried out.
2. The person meant in the first paragraph under c must be able to contact immediately a physician as meant in Article 6.14a, third paragraph.

Article 6.15a. Certification of maintenance system for diving and caisson equipment

1. Diving work, caisson work and other work under excess pressure must be carried out by an employer who is in the possession of a Maintenance System for Diving and Caisson Equipment Certificate issued by Our Minister or a certifying institution.
2. The certificate meant in the first paragraph or a copy of it should be present at the workplace and should be shown on request to the supervisor.

Article 6.16. Diving work

1. Diving work should be carried out by one or more divers assisted by a reserve diver and a team leader.
2. The reserve diver should only carry out diving work consisting of giving support to and rescuing divers in trouble. When using a diving bell, the reserve diver should be present in the bell.
3. The team leader should be in the possession of a diving team leader certificate issued either by Our Minister or a certifying institution which is relevant to the type of work he or she is carrying out.
4. Contrary to the first paragraph, the team leader may also act as a reserve diver if the diving work is carried out in a liquid consisting mainly of water with a maximum attainable depth of 9 metre and a maximum current velocity of 0.5 metre per second and whereby there is no foreseeable chance that the divers would get into trouble in this liquid.
5. Anyone who has carried out diving work should record this in a personal diving logbook. Apart from the nature of the diving work, at least the diving schedule followed should be recorded in this logbook including the decompression process followed as well as the duration of the stay in the liquid.
6. The divers and reserve diver should be in possession of a diving work certificate with respect to the type of work they are carrying out, issued by Our Minister or a certifying institution.
7. If diving work is being carried out, the person meant in Article 6.15, paragraph one under c, should be in the possession of a medical diving assistance certificate issued by our Minister or a certifying institution which is relevant to the type of work he or she is carrying out.
8. The diving team leader certificate, the diving work certificate and the medical diving assistance certificate meant in the third or the sixth and seventh paragraph, or copies of these must be present at the workplace and should be shown to the supervisor on request.
9. Paragraph six does not apply to a person who is carrying out diving work within the scope of a diving course, provided this takes place under the supervision of a person who is in the possession of a

certificate as meant in that paragraph.

Article 6.17. Reporting diving work

1. If diving work is carried out,
 - a. at a depth exceeding 9 metres;
 - b. under a current velocity exceeding 0.5 metre per second;
 - c. with intended decompression;
 - d. with breathing gas other than air;
 - e. for a period exceeding a week; or
 - f. for the underground mining industry or mineral-extracting industry through drilling, this should be notified to a supervisor designated to this end at least five working days before it commences specifying the location where the work will be carried out, the time this work will start, the probable number of employees involved and the number of employees that will actually carry out the diving work.
2. If the period between the instructions to perform the diving work as meant in the first paragraph and its execution is shorter than five working days due to the unforeseen and urgent nature of the diving work, the diving work should be reported to the official meant in the first paragraph as soon as possible.
3. With regard to the diving work for the underground mining industry or the mineral-extracting industry through drilling the notification meant in the first paragraph should be accompanied by information about the health and safety risks of the diving location.
4. The first paragraph does not apply to work carried out in connection with diving training.

Article 6.18. Diving work compression room

1. A suitable compression room supplied with an air lock for people and medicines should be present at the location where diving work is being carried out in water at a depth of more than 15 metres or in another liquid under a pressure exceeding $1.5 \cdot 10^5$ Pa of atmospheric pressure.
2. Notwithstanding the first paragraph a compression room should be present at the location where diving work is carried out if the travelling time between the diving site and the nearest processing facility with a compression room exceeds 2 hours.
3. The compression room meant in the first paragraph:
 - a. should have a size and design geared to the number of persons carrying out diving work and the nature of the activities, and
 - b. should offer room for at least two persons.
4. The compression room should be used in the proper manner.

Article 6.19. Caisson work

1. Caisson work should be carried out by at least two persons.
2. At least 30 days before performing caisson work a supervisor designated to this end should be notified of this under submission of a proper work plan.
3. A caisson should be built, installed, adjusted or disassembled under supervision of a specially designated person.
4. Caissons should be inspected regularly by a specially designated person.

Article 6.20. Caisson work compression chamber

1. A suitable compression room supplied with an air lock for persons and medicines should be present near the site where caisson work is being carried out under a pressure exceeding $1.5 \cdot 10^5$ Pa above atmospheric pressure.
2. Notwithstanding the first paragraph, a compression room should be present at the location where caisson work is carried out if the travelling time between that location and the nearest processing facility with a compression room exceeds 2 hours.
3. The compression room meant in the first paragraph:
 - a. should have a size and design geared to the number of persons carrying out caisson work and the nature of the activities, and
 - b. should offer room for at least two persons.
4. The compression room should be used in the proper manner.

Section 5A. Additional provisions for underground mining industries

Article 6.20a. Linking provision

Apart from the provisions of Sections 1 to 5 of this Chapter the provisions of this Section also apply to a workplace in the underground mining industry.

Article 6.20b. Ventilation

1. All normally accessible underground worksites should be properly ventilated. By means of permanent ventilation, with a sufficient safety margin, an atmosphere should be ensured:
 - a. which is healthy;
 - b. in which the explosion danger and the danger of breathable dust particles is kept under control;
 - c. in which the working conditions during working hours are adequate considering the working methods applied and the physical load of the employees.
2. If the natural ventilation does not comply with the first paragraph, the main ventilation should be provided by one or more mechanical ventilators. Measures should be taken to guarantee a constant and continuous ventilation. The underpressure of the main ventilators should be checked continuously. There should be an automatic alert in the event that the main ventilators fail unexpectedly.
3. The parameters of the ventilation:
 - a. must be measured regularly, and
 - b. the results of this must be recorded.
4. A ground plan should be made and regularly updated with all useful information about the ventilation system. The ground plan must be present at the workplace and must be shown to the supervisor on request.

Article 6.20c [Repealed as of 01/01/2007]

Section 5B. Additional provisions for the extracting industry by drilling

Article 6.20d. Linking provision

Apart from the provisions of Sections 1 to 5 of this Chapter the provisions of this Section also apply to a

workplace in the mineral-extracting industry through drilling.

Article 6.20e. Lighting

Lighting systems should be designed such that operational control rooms, escape routes, embarkation areas and danger zones are illuminated during the presence of employees.

Section 6. Special sectors and special categories of employees

§ 1. Transport

Article 6.21 [Repealed as of 15/02/2006]

Article 6.22 [Repealed as of 15/02/2006]

Article 6.23 [Repealed as of 15/02/2006]

Article 6.24. Other exceptions to means of transport

1. Articles 6.3 and 6.4 do not apply to aircraft for which a Dutch or an equivalent certificate of airworthiness has been issued before 1 January 1997 unless compliance with this may reasonably be required.
2. Articles 6.3 and 6.4 do not apply to seagoing vessels constructed before 1 January 1994 unless compliance with this may reasonably be required.
3. The date of manufacture of a seagoing vessel is determined on the basis of the provisions laid down in this respect in Article 2 of the Ships Decree 2004 or, if a seagoing fishing vessel is concerned, in the Fishing Vessels Decree or the Fishing Vessels Decree 2002.
4. Article 6.3 and 6.4 do not apply to vehicles on a public road or railway constructed before 1 January 1994 unless compliance with this may reasonably be required.

§ 2. Custodial institutions

Article 6.25. Climate, daylight and artificial lighting and ventilation

Articles 6.1, 6.2 and 6.3 do not apply to workplaces in custodial institutions which were in operation as such before 1 September 1990, insofar as compliance with this cannot reasonably be required.

§ 3. Young persons

Article 6.26. Linking provision

In addition to the provisions set out in or pursuant to this Chapter the provisions and prohibitions mentioned in this division also apply to young employees.

Article 6.27. Work prohibitions for young employees

1. Young employees are not allowed to carry out diving work, caisson work and other work under excess pressure as meant in Article 6.13.
2. Young employees are not allowed to carry out work with appliances which may radiate harmful, non-ionising electromagnetic radiation.

3. Young employees are not allowed to carry out work at a workplace where the daily exposure to noise exceeds 85 dB(A) or the peak noise pressure exceeds 140 Pa.
4. Young employees should not be exposed to harmful vibrations.

§ 4. Pregnant employees

Article 6.28. Linking provision

In addition to the provisions in or pursuant to this Chapter, the provisions set out in this division also apply to pregnant employees.

Article 6.29. Work prohibitions for working under excess pressure

A pregnant employee is prohibited from carrying out diving work, caisson work and other work under excess pressure as meant in Article 6.13.

Article 6.29a. Working in the underground mining industry

Pregnant employees or breast-feeding employees are prohibited from working in the underground mining industry.

Article 6.29b. Harmful vibrations

Pregnant employees may not, at the workplace:

- a. be exposed to physical vibrations or shocks of an acceleration in excess of 0.25 m/s²; or
- b. come into direct contact with an ultrasonic source of vibration with a frequency in excess of 20 kHz, where the exposure is greater than 110 dB per tert band.

Article 6.29c. Harmful noise

Pregnant employees may not, at the workplace, be exposed to equivalent noise levels in excess of 80 dB(A) and peak noise levels in excess of 112 Pa.

§ 5. [Repealed as of 01-07-2012]

Article 6.30. [Repealed as of 01-07-2012]

§ 6. Education

Article 6.31. Diving work of pupils and students

1. Article 6.16, sixth paragraph, is not applicable to pupils or students in educational institutions if these pupils or students carry out diving activities which:
 - a. are performed within the scope of scientific research;
 - b. are of a light nature, and
 - c. are carried out by a diving team as meant in Article 6.16, first paragraph, whereby the pupil or student functions as an additional member of this diving team.
2. In carrying out the diving activities meant in the first paragraph, the pupils or students should be in the possession of a sport diving certificate to be indicated by a Ministerial Order
3. With respect to the first paragraph detailed provisions can be laid down in a Ministerial Order.

Chapter 7. Work equipment and specific activities

Section 1. Applicability and definition

Article 7.1. Work equipment not in use

This Chapter does not apply to work equipment which is disassembled or dismantled such that it cannot be put back into use easily.

Article 7.2. Work equipment with a CE marking

1. Work equipment provided by the employer to the employee should comply with the Commodities Act Decrees applicable to that work equipment.
2. Work equipment is presumed to comply with Articles 7.4, first and second paragraph, 7.7, 7.10, 7.13, 7.14, 7.15, 7.16, 7.17a, 7.17b, with the exception of paragraph four and 7.18b, first paragraph, under a, if in accordance with the Commodities Act Decrees applicable to this work equipment it is provided with an EC marking together with an EC declaration of conformity and the work equipment is being used in accordance with the associated user instructions.
3. If work equipment is only provided with a CE marking for one or more of its components together with an EC declaration of conformity, the work equipment is only presumed to comply with the Articles mentioned in the second paragraph with respect to the marked component(s).

Article 7.2a. Definition of test

In this Chapter the term test means: an inspection or trial.

Section 2. General provisions

Article 7.3. Suitability of work equipment

1. With respect to the choice of the work equipment which the employer makes available, the employer should take into account the specific characteristics of the work as shown in the risk assessment and evaluation meant in Article 5 of the Act, the circumstances under which it is carried out, together with the hazards already existing in the workplace and the additional hazards which might result from the use of the respective work equipment.
2. In order to prevent the use of the work equipment creating a hazard to the health and safety of the employees, the work equipment being made available to the employees in the workplace should be used exclusively for the purpose, and in the manner and the place for which they have been fitted out and intended.
3. Moreover, the work equipment should be suitable for the work to be carried out or suitably adjusted to this end.
4. Insofar as it is not reasonably possible to avoid the hazards when using the work equipment, such measures should be taken that the hazards are restricted as much as possible.

Article 7.4. Soundness of work equipment and unintended events

1. Work equipment should consist of sound materials.
2. Work equipment should be properly constructed.
3. Work equipment should be placed, mounted or fitted out such and be used such that the danger of an unintended event arising, such as shifting, falling over, toppling over, being hit by the work equipment or parts of it, overheating, fire, explosion, lightning strike and being directly or indirectly in contact with electricity, is prevented as much as possible.

4. Article 3.17 applies accordingly.

Article 7.4a. Tests

1. Any work equipment the safety of which depends on the manner of its installation, should be tested after installation and before it is put in operation for the first time to check whether it is correctly installed and is functioning properly and safely.
2. In addition, work equipment as meant in paragraph one should be tested after any assembly at a new location or new place to check whether it is correctly installed and is functioning properly and safely.
3. Work equipment subject to influences resulting in deterioration which could give rise to a hazardous situation should be tested as often as necessary to safeguard its good condition and be tried out if necessary.
4. Work equipment as meant in the third paragraph should also be tested and if necessary tried out every time exceptional circumstances have arisen which might have harmful consequences for the safety of the work equipment. Exceptional circumstances would in any event include: natural phenomena, changes to the work equipment, accidents with the work equipment and the work equipment being shut off for a long time.
5. Tests should be carried out by an expert natural person, corporation or institution.
6. Written evidence of the tests carried out must be present at the workplace and must be shown to the supervisor on request.
7. This Article does not apply to amusement and gambling machines to which the Amusement and Gambling Machines Commodities Act Decree applies.
8. The first to the fifth paragraphs do not apply to scaffolding to which Article 7.34 applies.
9. Paragraph one to three do not apply to:
 - a. hoisting and lifting machines and hoisting and lifting tools on board vessels to which Article 7.29 applies;
 - b. lifts to which the Lifts Commodities Act Decree applies.
10. [This paragraph has not yet come into force.]
11. The first and second paragraphs do not apply to pressure equipment to which Article 12b of the Pressure Equipment Commodities Act Decree applies.
12. The third paragraph does not apply to:
 - a. hoisting and lifting tools to which Article 7.20 applies;
 - b. containers to which the Containers Commodities Act Decree applies;
 - c. hoisting cranes to which Articles 6d to 6f of the Machines Commodities Act Decree apply;
 - d. pressure equipment to which Article 12c of the Pressure Equipment Commodities Act Decree is applicable.
13. With regard to changes or repairs the fourth paragraph does not apply to pressure equipment to which Article 12c of the Pressure Equipment Commodities Act Decree applies.
14. Paragraph one up to and including paragraph three do not apply to lifting and hoisting equipment for the professional transport of passengers to which the Machines Commodities Act Decree applies.

Article 7.5. Assembly, disassembly, maintenance, repair and cleaning of work equipment

1. The necessary measures should be taken to ensure that the work equipment is sufficient maintained over its full useful life so as to remain in such a condition that a hazard to the health and safety of the employees is prevented as much as possible.
2. Maintenance, repair and cleaning activities to work equipment should only be carried out if the work equipment is switched off and has been de-pressurised or is dead. If this is not possible, suitable measures should be taken in order to be able to carry out those activities safely.
3. The second paragraph applies accordingly to production and adjustment activities with or to work equipment.
4. Maintenance books belonging to work equipment should be kept properly up-to-date.
5. Assembly and disassembly of work equipment should take place in a safe manner with due observance of any instructions from the manufacturer.

Article 7.6. Expertise of employees

1. With respect to work equipment the use of which might create a specific hazard to the safety of the employees, their use should be reserved to employees who have been entrusted with this.
2. Employees entrusted with the conversion, maintenance, repair or cleaning of work equipment as meant in the first paragraph, should have specific expertise and experience to this end.

Article 7.7. Safety provisions in connection with moving parts of work equipment

1. If moving parts of work equipment create a hazard, they should be provided with screens or safety devices such that the hazard is avoided as much as possible.
2. The screens or safety devices should be of a solid construction.
3. The screens or safety devices should not create additional hazards.
4. It should not be possible to easily ignore or put the screens or safety devices out of operation.
5. The screens or safety devices should be fitted at a sufficient distance from the danger area of the work equipment.
6. The screens or safety devices should interfere as little as possible with the view of the work.
7. The screens or safety devices should be fitted in such a manner that the necessary maintenance and repair activities can be carried out safely. In doing so, dismantling the screens or safety devices should be avoided as much as possible.

Article 7.8. Lighting

In addition to Article 6.3, operating and maintenance points of work equipment should be sufficiently and effectively lit.

Article 7.9. High and low temperatures

Employees should be prevented as much as possible from coming into the direct surroundings of work equipment or its parts which are at very high or very low temperatures. If this is not possible, suitable measures should be taken to prevent contact with this work equipment or its parts.

Article 7.10. Alarm signals

Alarm signals of work equipment should be easily and clearly observable and properly recognisable as

such. They should comply with the provisions set out in or pursuant to Section 2 of Chapter 8.

Article 7.11. Disconnecting work equipment

1. Work equipment should have clearly recognisable provisions by which it can be disconnected from its power source.
2. Reconnecting the work equipment after it has been disconnected from its power source should not create any hazard for the employees.

Article 7.11a. Information

1. Operating instructions belonging to work equipment should be brought to the notice of the employees involved in an understandable form.
2. If the use or presence of work equipment in the direct work surroundings could create hazards for the employees, this will be pointed out to them even if the employees are not directly using this equipment.

Section 3. Work equipment with an operating system

Article 7.12. Linking provision

Apart from the provisions in Sections 1 and 2 of this Chapter, the provisions of this Section also apply to work equipment with an operating system.

Article 7.13. Operating systems and operating units

1. Operating systems of work equipment should be safe.
2. Operating systems should not create a hazard for the employees even when unintentional actions are taken.
3. When choosing operating systems, the faults, breakdowns and expected loads when using the operating system should be taken into account.
4. An operating unit should be clearly visible and recognisable and - where necessary - should be provided with functional indications to this end in a suitable manner.
5. Operating units should be situated outside the danger area of the work equipment as much as possible.
6. The location of the operating unit should not create additional hazards for the employees.
7. If work equipment can be put into operation or stopped from a place from which there is not a complete view of this work equipment, then in order to protect the respective employees, before putting the work equipment into operation or shutting it off, a signal should be given in good time at every occasion in compliance with the provisions set out in or pursuant to Section 2 of Chapter 8.

Article 7.14. Putting work equipment into operation

1. Operating units should only be able to be put into operation by an intentional action with an operating system intended to this end.
2. The first paragraph applies accordingly to resuming operation after a pause regardless of its cause and also for bringing about an important change in the operation of the work equipment unless the resuming of the operation or this change cannot create any hazards for people.

3. The second paragraph does not apply if the putting into operation or change in the operation of work equipment forms part of the normal programme of an automatic cycle.

Article 7.15. Shutting down work equipment

1. It should be possible to shut off work equipment in a safe manner with an operating unit intended for this purpose. Depending on the hazard, operating systems should stop either the complete work equipment or parts of it, to the extent that the work equipment is in a safe condition.
2. When the work equipment or parts of it have been stopped, the energy supply should be interrupted to the work equipment or those of its parts causing the hazard.
3. It should not be possible to cancel the instruction to stop the work equipment or part of it by an instruction to start up the work equipment or a part of it.

Article 7.16. Emergency stop provision

Work equipment should have an emergency stop provision if this is necessary with a view to the hazards of this work equipment and the normal time required to stop this work equipment.

Section 4. Additional provisions for specific work equipment and activities

§ 1. Adjustment

Article 7.17. Linking provision

Apart from the provisions of Sections 1 to 3 of this Chapter the provisions of this Section also apply to the specific work equipment and activities mentioned in this Section.

§ 2. Provisions for mobile work equipment

Article 7.17a. Outfit of mobile work equipment

1. Mobile work equipment on which one or more persons can be transported should be fitted out in such a manner that the hazards for these persons during transport are restricted as much as possible.
2. Mobile work equipment able to transport one or more persons, with the exception of forklift trucks, should be fitted out in such a manner that under actual user circumstances the hazards which could result from the mobile work equipment toppling over or falling are restricted as much as possible by:
 - a. a protective construction preventing the mobile work equipment from tilting more than a quarter turn;
 - b. a construction ensuring that there is sufficient free space around the persons to be transported when the mobile work equipment is able to move more than a quarter turn; or
 - c. other provisions with an equal level of safety.
3. The second paragraph does not apply if the mobile work equipment is stabilised during use or if the mobile work equipment is designed in such a manner that it cannot fall or topple over.
4. If there is a danger that when mobile work equipment topples over or falls that the persons to be transported could become trapped between the parts of it and the ground, a system should be installed by which they can be held back.
5. Forklift trucks able to transport one or more persons should be fitted out in such a manner that the hazard of toppling over or the consequences of this are restricted as much as possible by:
 - a. a driver cabin;
 - b. a device preventing the forklift truck from toppling over;

- c. a device making sure that if the forklift truck topples over, there is sufficient free space between the ground and certain parts of the forklift truck for the persons being transported;
 - d. a device on each seat of the forklift truck by which the persons present on the truck are able to secure themselves on the seat; or
 - e. other provisions with an equal level of safety.
6. If a sudden jamming of parts for the energy transmission between the mobile work equipment and its accessories or trailers could create specific hazards, this work equipment should be fitted with a provision to prevent this jamming. If such jamming cannot be avoided, measures should be taken such that the hazards are restricted as much as possible.
 7. Mobile work equipment should be provided with means of fastening parts of the energy transmission when these parts may become dirty or damaged because of being dragged over the ground.

Article 7.17b. Outfit of self-propelled mobile work equipment

1. In addition to Article 7.17a this Article applies to self-propelled mobile work equipment which when in motion could cause hazards for the employees.
2. Mobile work equipment should be equipped with:
 - a. provisions to prevent it being put into operation by unauthorised persons;
 - b. effective provisions to restrict the consequences of any collision, if various mobile work equipment on rails are being moved at the same time;
 - c. a brake and stop provision;
 - d. an emergency provision insofar as this is required for safety reasons, which enables the mobile work equipment to be braked or brought to a standstill by easily accessible control units or by automatic systems in cases of a breakdown in the main braking system and stop provision;
 - e. effective aids to give the driver a sufficient view if his direct field of view is insufficient to safeguard the safety of persons.
3. If mobile work equipment is being used at night or in dark places, it should be provided with lighting equipment adjusted to the work to be carried out and offering sufficient safety to employees.
4. If mobile work equipment, their trailers or loads may create a fire hazard for people, they should be provided with effective fire fighting means, unless the workplace has been equipped with this within a suitably short distance from this work equipment, their trailers or loads.
5. If mobile work equipment is remote-operated, they should automatically come to a standstill when they leave the control area.
6. If mobile work equipment is remote-operated and is able to drive into or trap employees under normal user circumstances, they should be equipped with provisions offering protection against these hazards unless other suitable provisions are present to restrict the hazard of collisions.

Article 7.17c. Use of mobile work equipment

1. Self-propelled mobile work equipment should be operated by employees having a specific expertise to this end.
2. Employees should only be allowed to ride on self-propelled mobile work equipment on safe places specifically fitted out for this purpose.
3. If activities are carried out when the work equipment as meant in the second paragraph is moving, the speed of the work equipment should be adjusted if necessary.
4. If mobile work equipment is moving within a work area where employees might be situated, effective traffic rules should be determined.

5. Effective organisational measures should be taken in order to prevent employees from being present in the work area of self-propelled mobile work equipment.
6. If the presence of employees in a work area as meant in the fifth paragraph is necessary for the proper execution of the activities, suitable measures should be taken in order to avoid their becoming injured by the mobile work equipment.
7. Mobile work equipment with an I.C.-engine should not be used in the workplace unless sufficient clean air is ensured.
8. Mobile work equipment can only be left by the driver after it has been brought to a stop and it has been ensured that after leaving it, it does not start to move unexpectedly.

Article 7.17d. Transporting persons over water

With respect to transport of employees over water, effective measures should be taken to guarantee the safety of these employees.

§ 2a. Provisions for work equipment for hoisting and lifting loads or persons

Article 7.18. Hoisting and lifting machines

1. Hoisting or lifting machines should be supplied with a properly readable indication on or close to the operating position stating the permissible operating load for each usual configuration of this machine.
2. Hoisting or lifting machines should not - except for testing - be put under a heavier load than the permissible operating load or operating loads nor loads heavier than safe use allows.
3. Hoisting and lifting machines should be operated by persons having specific expertise to this end.
4. No persons should be transported instead of or together with goods in a hoisting or lifting machine which is exclusively intended and fitted out for the transport of goods.
5. Hoisting or lifting machines not intended or equipped for hoisting or lifting persons and where there is a chance of them being used wrongly, should be provided with properly legible warnings against the transport of passengers.
6. Hoisting and lifting machines should be installed in such a manner as to restrict the hazard of the load hitting employees or falling freely or becoming unintentionally dislodged in a dangerous way.
7. Effective measures should be taken to ensure that employees do not stay under the suspended loads.
8. Suspended loads should not be moved above non-protected workplaces where employees are usually situated.
9. If when implementing paragraphs seven and eight the proper progress of the activities cannot be guaranteed, suitable procedures should be determined and applied in order to guarantee the safety of the employees involved.

Article 7.18a. Hoisting and lifting machines for non-guided loads

1. In addition to Article 7.18 this Article applies to the use of hoisting and lifting machines intended for hoisting or lifting non-guided loads.
2. When two or more hoisting or lifting machines are installed or assembled in the workplace in such a way that their work areas overlap, suitable measures should be taken to avoid collisions between the loads or parts of these machines.

3. When using a mobile hoisting or lifting machine, suitable measures should be taken to prevent the machine from toppling over, starting to move or slipping away unintentionally.
4. There should be supervision to ensure that the measures meant in the third paragraph are carried out properly.
5. When the operator of a hoisting or lifting machine cannot follow the complete path of the load either directly or by means of informative aids, an employee should be designated who is in communication with the operator to give him guidance.
6. In addition, further organisational measures should be taken to avoid unintentional collisions with the load of the hoisting or lifting machine.
7. When loads are manually fastened or loosened, the activity should be organised in such a manner that the employee is able to carry out these actions safely and keep direct or indirect control over it.
8. All actions for hoisting or lifting should be planned correctly in order to guarantee the safety of the employees.
9. The actions meant in the eighth paragraph should be carried out under effective supervision.
10. Particularly if a load is hoisted or lifted simultaneously by two or more hoisting or lifting machines, a procedure should be determined and applied in order to guarantee proper coordination of the actions of the operators.
11. If hoisting or lifting machines can no longer hold their loads because of a complete or partial breakdown in the energy supply, suitable measures should be taken in order to prevent employees from being exposed to the associated hazards.
12. Loads as meant in the eleventh paragraph should be continuously supervised, unless the access to the danger area has been prevented and the loads are fastened and secured completely safely.
13. Hoisting and lifting machines used in the open air should be shut down as soon as the weather conditions deteriorate to such an extent that there is a danger to safe operation and employees are exposed to hazards. In this case suitable protective measures should be taken in particular to avoid the hoisting or lifting machine toppling over.

Article 7.18b. Hoisting and lifting machines for persons

1. In addition to Articles 7.18 and 7.18a hoisting and lifting machines intended and equipped for hoisting or lifting persons should be equipped with such provisions that the following is avoided as much as possible:
 - a. the hoisting or lifting platform falling down,
 - b. persons falling from this platform,
 - c. the person making use of the hoisting or lifting machine being crushed, trapped or struck particularly as a result of unintentional contact with an object.
2. A hoisting or lifting machine as meant in the first paragraph should also have provisions such that - whilst there is any fault on the machine - the persons situated on the hoisting or lifting platform have their safety ensured as much as possible and that they can be freed.
3. If for reasons in connection with the site conditions and the difference in height, the hazard meant in the first paragraph under a cannot be avoided by means of a safety device, then a suitable cable, chain or other provision with an increased safety coefficient should be fitted in the suspension of the hoisting or lifting platform.
4. In the case meant in the third paragraph the proper condition of the cable, chain or other provision

fitted in the suspension should be checked every working day.

Article 7.19 [Repealed as of 01/09/2003]

Article 7.20. Hoisting and lifting tools

1. Hoisting and lifting tools should be chosen according to the loads, strop points, hook provision and weather conditions taking into account the manner of slinging the load and the hoisting or lifting machine to be used.
2. Hoisting or lifting tools, other than ropes or steel cables, should be supplied with a properly readable indication stating the operational load.
3. Composite hoisting and lifting tools should be clearly marked in order to enable the user to know their characteristics.
4. Hoisting or lifting tools should not - except for testing - be under a load heavier than the allowable operating load or than safe use allows.
5. Hoisting and lifting tools should be stored in such a way that they cannot be damaged or affected.
6. Hoisting and lifting tools should be examined at least once a year by an expert natural person, a corporation or institution as to their proper condition and, if necessary, should then be tested. This person or institution should have the necessary equipment to this end at their disposal.
7. Documentary evidence of the examinations and tests meant in the sixth paragraph must be present at the workplace and shown to the supervisor on request.

Article 7.21. Activities in lift shafts

1. If two or more lifts are situated in a lift shaft, adequate technical measures should be taken in order to prevent persons working on one of the lifts in the shaft being hit by parts of an adjacent lift.
2. If taking the measures meant in the first paragraph is not feasible, the hazard meant in the first paragraph should be avoided by shutting off the adjacent lift.

Article 7.22 [Repealed as of 01/01/2007]

§ 2b. Provisions with regard to the use of the work equipment provided for temporary work at heights

Article 7.23. General

1. If temporary activities at heights cannot be carried out safely and under suitable ergonomic circumstances on a work floor suitable to this end, the most suitable work equipment should be chosen to safeguard safe working conditions and to maintain them. In order to achieve this:
 - a. collective safety measures should have priority over personal protective measures;
 - b. the dimensions of the work equipment should be:
 - 1°. geared to the nature of the activities to be carried out;
 - 2°. geared to the foreseeable loads; and
 - 3°. such that through passage is possible without any danger;
 - c. the most suitable means of access for the temporary workplace at heights must be chosen depending on the traffic, the height to be bridged and the user period;
 - d. the means of access chosen should in the event of a threat of danger offer the opportunity to vacate the site;

- e. stepping from a means of access across to the platforms, floors or walkways and vice versa should not create an extra risk of falling down.
2. With due observance of the first paragraph the use of ladders and stairways as workplaces at heights should be restricted to circumstances in which the use of other, safer work equipment is not justified in connection with the low risk, and
 - a. because of the short user period, or
 - b. the existing characteristics of the locations which cannot be changed by the employer.
3. Access and positioning techniques with lines should only be used under circumstances in which it appears from the risk assessment and evaluation meant in Article 5 of the Act that the work can be carried out safely and in which the use of other safer work equipment is not reasonably possible.
4. In the case meant in the third paragraph, taking into account the risk assessment and evaluation meant in Article 5 of the Act and the duration of the activities and the ergonomic requirements, a seat with suitable accessories should be provided.
5. Depending on the work equipment to be used the necessary measures should be taken in order to minimise the risks for the employees associated with this work equipment. If necessary fall protection devices should be fitted.
6. The fall protection provisions should have a configuration and strength such that falling from heights is prevented or that any fall is stopped such that injuries of employees is prevented as much as possible.
7. The collective fall protection provisions should only be interrupted where there is access to a ladder or staircase.
8. When the performance of the activities requires that a collective fall protection provision is temporarily removed, suitable, replacement safety provisions should be arranged.
9. The activities meant in the eighth paragraph, should only be performed after these replacement provisions have been made.
10. After the final or temporary termination of the activities meant in the eighth paragraph, the collective fall protection provisions should again be fitted.
11. Temporary activities at heights should only be carried out when the weather conditions do not endanger the health and safety of the employees.

Article 7.23a. Specific provisions with regard to the use of ladders and stairways

1. Ladders and stairways must be placed such that their stability during use is guaranteed. To this end the following measures should be taken in any event:
 - a. the bearings of portable ladders and stairways should rest on a stable, solid and immovable base of sufficient scope so that the rungs stay horizontal;
 - b. hanging ladders should be attached securely and, with the exception of rope ladders, in such a manner that they cannot slide and that swinging to and fro is prevented.
2. In using ladders and stairways the following measures should be taken in any event:
 - a. portable ladders and stairways losing their footings during use should be prevented by securing the top or bottom of the stiles or by means of an anti-slip device or another solution equally as effective;
 - b. access ladders should protrude at least 1 metre above the access level unless other provisions

- enable a safe grip;
 - c. multiple-part ladders and sliding ladders must be used such that the different parts cannot shift in relation to each other;
 - d. ladders and stairways on wheels must be secured before people can step onto them.
3. Ladders and stairways must be used such that the employees have at all times a safe support and grip. In any event manually carrying a load on a ladder or a stairway should not hinder a safe grip.

Article 7.23b. Specific provisions regarding scaffolding

1. When the strength and stability calculation is not available for the chosen scaffolding or the structure configurations considered are not included in the calculation, a strength and stability calculation must still be made unless the scaffolding is constructed in accordance with a generally acknowledged standard configuration.
2. Depending on the complexity of the scaffolding chosen, an assembly, disassembly and conversion diagram must be drawn up by a person authorised to this end. This diagram can have the form of a general working drawing supplemented by detailed drawings for specific scaffolding.
3. The supports of a scaffolding should be safeguarded against slippage either by securing it to the supporting surface or by an anti-slip device or another solution equally as effective.
4. The supporting surface of the supports must have sufficient capacity.
5. The stability of the scaffolding must be ensured. Unintended movements of scaffolding on wheels during activities at heights must be prevented by a suitable provision.
6. The dimensions, form and position of the floors of scaffolding must be adjusted to the nature of the activities to be carried out and the loads to be carried and must be such that safe traffic can take place and work can be carried out safely.
7. The floors of scaffolding must be assembled such that its parts cannot move during normal use. No dangerous openings should be present between the parts of the floors and the vertical devices of the collective fall protection provisions.
8. If certain parts of scaffolding are not ready for use, these parts must with due observance of Section 2 of Chapter 8 be marked with safety warnings and properly demarcated by material partitions preventing access to the danger zone.
9. Scaffolding should only be erected, dismantled or fundamentally changed under the supervision of an authorised person and by employees who have had sufficient and specific training for the intended activities with regard to the specific risks, particularly aimed at:
 - a. understanding the assembly, disassembly and conversion diagram of the respective scaffolding;
 - b. safely assembling, disassembling or converting the respective scaffolding;
 - c. measures to prevent the risk of persons or objects falling;
 - d. safety measures when changing weather conditions which might prejudice the safety of the scaffolding are involved;
 - e. the acceptable load, and
 - f. any other risk that might be involved in the assembly, disassembly or conversion activities.
10. The person supervising the activities and the employees involved should have the assembly, disassembly and conversion diagram meant in the second paragraph at their disposal, including any associated instructions.

Article 7.23c. Specific provisions with regard to the use of access and positioning techniques with lines

1. When using access and positioning techniques with lines as meant in Article 7.23, third paragraph, the following conditions must be met:
 - a. the system must include at least two separately tied lines, namely:
 - 1°. a working line serving to get on top or out of the workplace, and
 - 2°. a safety line operating as a reserve line;
 - b. the employees should have a suitable harness at their disposal which complies with the provisions determined in or pursuant to Section 1 of Chapter 8, by which they are connected to the safety line;
 - c. the safety line must be provided with:
 - 1°. a safe ascending and descending mechanism, and
 - 2°. a self-blocking mechanism so that the user cannot fall when he loses control of his movements;
 - d. the safety line must be fitted with a movable fall protection mechanism which follows the employee in his movements;
 - e. the tools and other accessories used by the employee must be connected to the harness or the seat of the employee meant in Article 7.23, fourth paragraph, or attached in another suitable manner;
 - f. the work should be properly planned and be supervised so that, if necessary, the employee can be given assistance immediately;
 - g. the employees involved must have had adequate and specific training for the intended activities, in particular with regard to the rescue procedures.
2. In exceptional circumstances in which the use of two lines would render the work more dangerous considering the risk assessment and evaluation meant in Article 5 of the Act, the use of one single line may be allowed provided suitable measures are taken to guarantee safety.

Article 7.23d. Specific provisions with regard to the use of work cages

1. Article 7.18, fourth paragraph, does not apply to the transport of employees by means of a work cage linked to hoisting or lifting equipment if activities are carried out from that work cage which take place at the most a few times each year and which on each occasion do not take longer than four hours, at locations which are difficult to access and if the application of other more suitable means to reach those places would involve greater dangers than the transport of employees with a work cage as meant above or the application of such means cannot reasonably be required.
2. With regard to the application of the first paragraph, work cages are only used whereby:
 - a. if the work cage is attached to a forklift truck or similar mobile lifting machine, the load of the fully loaded work cage should not exceed half of the maximum acceptable load of the lifting machine in its most unfavourable position;
 - b. if the work cage is attached to a hoisting crane, the load of the fully loaded work cage and the associated hoisting equipment should not exceed one quarter of the acceptable work load of the hoisting crane. Contrary to this - when using a work cage attached to a fixed hoisting crane or to a hoisting crane mounted on a permanent crane track - the load should not exceed three-quarters of the nominal load for which these cranes are designed.
3. When the first paragraph is applied, the operating position of the hoist or lifting machine should be permanently manned.
4. When applying the first paragraph – when using a forklift truck or a similar mobile lifting machine - the horizontal move of a work cage which has been lifted more than 0.2 m is only allowed if it is driven with a speed of not more than 2.5 km per hour in order to position the work cage.
5. When applying the first paragraph the following provisions apply with regard to the hoisting crane and the lifting tools used in combination with a work cage:
 - a. one should not drive a mobile hoisting crane to which a manned work cage is attached;

- b. it is only allowed to drive a hoisting crane on a crane track with a manned work cage with a speed of not more than 2.5 km per hour.
6. When applying the first paragraph, the following provisions apply to the employees involved:
 - a. the employees being hoisted or lifted should have effective means of communication at their disposal, and
 - b. effective provisions should be made in order to evacuate the employees if a hazard occurs.

§ 3. Provisions for loading and unloading vessels

Article 7.24. Access to the vessel

1. In addition to Article 3.2 the access to a hold or deck of a vessel should only be allowed by means of a fixed staircase and if this is not feasible a fixed ladder or clamps or foot openings of suitable dimensions with sufficient strength and proper construction or other proper means of access.
2. The means of access mentioned in the first paragraph should be separated from the hatch openings if this is reasonably feasible.

Article 7.25. Hatches

1. Hatches being fitted or removed by means of hoisting or lifting machines should be fitted out with properly accessible and suitable fixings for attaching the hoisting equipment.
2. If hatches are not mutually interchangeable, they should be clearly marked in order to indicate the hold openings and locations to which they belong.
3. Motor-driven or hydraulic hatches and other motor-driven or hydraulic ship's equipment should only be fitted or removed by a person authorised to this end.
4. The hatches and ship's equipment meant in the third paragraph should only be fitted or removed if this can take place safely.
5. Hatch openings not fitted with effective hatch coamings should be closed or otherwise secured as soon as the loading and unloading activities are concluded.
6. Hatches should not be fitted or removed if work is being carried out in the hold under the hatch opening.
7. Hatches not sufficiently secured against being moved, should be removed before the loading or unloading activities are commenced.

Article 7.26. Handling goods or materials

1. Storing or transferring, loading or unloading, stowing or otherwise handling goods or materials on the quay, in sheds or in the ship should take place in a safe and tidy manner taking into account the nature of these goods or materials and their packaging.
2. Loads should not be raised or lowered unless they are safely hitched or otherwise attached to the hoisting or lifting machine.

Article 7.27. Rigging plans and tying or hoisting equipment

1. For safely rigging cargo booms and associated equipment, rigging plans and all related information should be present on board the ship. The rigging plans must be shown to the supervisor on request.
2. Disposable tying or hoisting equipment should not be re-used.

Article 7.28. Containers

During the loading and unloading of containers, proper equipment should be present to guarantee the safety of the employees when fitting or removing the lashings of the containers.

Article 7.29. Hoisting and lifting machines and hoisting and lifting tools on board ships

1. Contrary to Articles 7.20, sixth and seventh paragraph the following provisions apply to hoisting and lifting machines as well as hoisting and lifting tools on board ships being used for loading and unloading.
2. Hoisting and lifting machines including their associated accessories, parts, attachment points, anchorages and supports and hoisting and lifting tools should be suitably tested as to their good condition before they are put into use for the first time.
3. Machines and tools as meant in the second paragraph should be effectively tested and examined to check their good condition after any relevant change or repair which might affect safety.
4. Machines and tools as meant in the second paragraph should - depending on the load - be regularly and effectively tested to check their good condition but in any event at least once every five years.
5. Hoisting and lifting machines and hoisting and lifting tools should - depending on their actual load - be regularly tested to check their good condition but in any event at least once every year.
6. Hoisting and lifting tools should - depending on their use - be tested regularly to check their good condition.
7. Tests and checks as meant in paragraphs two to four should be carried out by Our Minister or a certifying institution.
8. Tests and checks as meant in the fifth and sixth paragraph should be carried out by an expert natural person, corporation or a certifying institution.
9. Certificates of the tests and checks as meant in paragraphs two to four should be issued by the certifying institution meant in the seventh paragraph in accordance with a model determined in a Ministerial Order.
10. On board any ship an up-to-date register of the hoisting and lifting machines and the hoisting and lifting tools should be kept in accordance with a model determined in a Ministerial Order in which the certificates meant in the ninth paragraph are included. The register should include the operational load or loads of the hoisting and lifting machines, the operating load of the hoisting and lifting tools as well as the times and results of the tests and examinations mentioned in the second to the fifth paragraph. The times and the results of the checks meant in the sixth paragraph should be stated if a fault was found during the respective checks. The register must be shown to the supervisor on request.

Article 7.30. Weight indication on heavy objects

1. Lots or objects weighing at least 1000 kilograms gross and which are transported in a ship should be marked clearly and permanently on the outside with an indication of the weight of these lots or objects.
2. When transporting lots or objects as meant in the first paragraph, instead of the exact weight it is permitted to indicate the approximate weight as accurately as possible:
 - a. if the nature, composition or dimension of the lot or object form an impediment to determining the precise weight;
 - b. if the weight as a result of climatic influences is subject to considerable changes.

Section 5. Additional provisions for construction sites

§ 1. Adjustment

Article 7.31. Linking provision

Apart from the provisions of Sections 1 to 4 of this Chapter the provisions of this Section also apply to construction sites.

§ 2. Work equipment on the construction site

Article 7.32. Operating tower cranes, mobile cranes and foundation machines

1. Tower cranes, mobile cranes or foundation machines falling into a category described in a Ministerial Order can only be operated by a person who:
 - a. is in the possession of a certificate of competence issued by Our Minister or a certifying institution;
 - b. is in a physical and mental condition such that he is able to be aware of and avoid the hazards associated with the operation of the respective work equipment.
2. The certificate of competence or a copy of it should be present at the workplace and should be shown to the supervisor on request.
3. The first paragraph does not apply to persons who operate a tower crane, mobile crane or foundation machine within the scope of a training course for machinists, provided this takes place under supervision of a person in the possession of a certificate of competence as meant in the first paragraph under a.

Article 7.33 [Repealed as of 15/07/2006]

Article 7.34. Scaffolding

1. The safety of the construction of a scaffolding should be regularly checked by a person expert in this field but in any event before being put into use and additionally after any change in the construction of the scaffolding, after any period in which the scaffolding has not been used, after abnormal weather conditions and also after any other event by which the safety of the construction of the scaffolding might be affected.
2. Scaffolding should not be overloaded. Loads should be spread as evenly as possible over the scaffolding.
3. Rolling scaffolding should be safeguarded against unintentional movements.

Article 7.35. Earth moving and material transfer machines

1. Drivers and operators of earth moving and material transfer machines should have a specific expertise to this end.
2. Effective measures should be taken to prevent earth moving and material transfer machines unintentionally ending up in excavations or in water.

Article 7.36 [Repealed as of 05/12/1998]

Section 5A. Additional provisions for the opencast mining industry, underground mining industry

or extracting industry by drilling

Article 7.36a. Linking provision

Apart from the provisions of Parts 1 to 4 of this Chapter the provisions of this Section also apply to opencast mining industry, underground mining industry or extracting industry by drilling.

Article 7.36b. Work equipment

1. The health and safety of the employees should be taken into account with regard to the choice, installation, commissioning, operation and maintenance of the mechanical and electrotechnical equipment.
2. If the equipment is situated in an area where there is or might be a risk of fire or explosion as a result of the ignition of gases, vapours or volatile liquids, this equipment should be adjusted to use in such an area. If necessary, it should be provided with sufficient protective equipment and systems to provide breakdown protection.
3. The mechanical equipment and installations should have the necessary strength, be free of visible faults and suitable for their intended use. The electrotechnical equipment and installations should have the necessary power and capacity for their intended use.
4. An effective plan should be drawn up for the systematic inspection, maintenance and, as the case may be, testing of the equipment and installations. Maintenance, inspection and tests of any part of the equipment and installations must be carried out by an expert designated to this end. Effective inspection and test reports should be drawn up and properly kept up-to-date.

Section 6. Special sectors and special categories of employees

§ 1. Transport

Article 7.37. Exceptions to means of transport

1. Chapter 7 applies to launching equipment for life-saving devices on seagoing vessels insofar as the intended use of this equipment is not affected.
2. Article 7.4a, first to third paragraph, does not apply to seagoing vessels insofar as this involves launching equipment for life-saving devices and mechanical pilot ladders.
3. Article 7.29 does not apply to fishing vessels as meant in Article 1 of the Ships Act.

§ 2. Young employees

Article 7.38. Linking provision

In addition to the provisions set out in or pursuant to this Chapter the provisions and prohibitions mentioned in this division also apply to young employees.

Article 7.39. Expert supervision

Article 1.37, second paragraph, applies accordingly to young employees who:

- a. carry out work involving driving trucks and connecting or disconnecting trailers or equipment in direct connection with this;
- b. carry out work with wild, poisonous or other animals which can cause a hazard;
- c. slaughter animals industrially;
- d. are carrying out non-varied and repetitious activities of short duration on the basis of piece rates whereby the tempo is controlled in such a manner that the young employee himself is prevented

from affecting the tempo of the work.

§ 3. [Repealed as of 01-07-2012]

Article 7.40. [Repealed as of 01-07-2012]

Article 7.41. [Repealed as of 01-07-2012]

Article 7.42. [Repealed as of 01-07-2012]

Chapter 8. Personal protective equipment and health and safety signs

Section 1. Personal protective equipment

Article 8.1. General requirements for personal protective equipment

1. Personal protective equipment made available by the employer to the employee should be in accordance with the respective provisions concerning health and safety design and construction meant in the Personal Protective Equipment Commodities Act Decree. The previous sentence only applies insofar as the said personal protective equipment falls within the scope of the said Decree.
2. In all cases personal protective equipment should:
 - a. be suitable for the hazards to be avoided without being itself inherently more hazardous;
 - b. meet the existing circumstances in the workplace;
 - c. be geared to the ergonomic demands and health and safety requirements of the employees;
 - d. be suitable for the wearer after the necessary adjustments.
3. If wearing more than one piece of personal protective equipment is required simultaneously to counter different hazards, these separate pieces of personal protective equipment should be geared to each other and they should remain effective against the respective hazard or the respective hazards.
4. The choice of personal protective equipment and the manner in which it should be used, particularly with regard to the time it must be worn, should be determined according to the seriousness of the hazard, the frequency of the exposure to the hazard and the characteristics of the workplace of each separate employee as well as the effectiveness of the respective personal protective equipment.
5. In principle, personal protective equipment is intended for use by one person. If the circumstances require that the same personal protective equipment is being used by more than one person, effective measures should be taken to ensure that such use does not create health or hygiene problems for the various users.
6. Adequate information on each item of personal protective equipment required for application of the first, second, third and fourth paragraph should be available in the business or establishment and should be passed on if necessary.
7. Personal protective equipment should only be used for the purpose for which it was intended.
8. Personal protective equipment should be used in accordance with the user instructions.

Article 8.2. Choice of personal protective equipment

Before choosing personal protective equipment, the employer should make an assessment in connection with the risk assessment and evaluation meant in Article 5 of the Act, of the equipment he intends to make available in order to ascertain the extent to which this complies with the conditions set out in Article 8.1, first, second and third paragraph. This assessment includes:

- a. a risk assessment and evaluation of the hazards which cannot be avoided by other equipment;
- b. a description of the characteristics which the personal protective equipment should have in order to overcome the hazards mentioned under a, taking into account any hazard sources which the personal protective equipment itself might create;
- c. a risk assessment and evaluation of the characteristics of the respective personal protective equipment which is available in comparison with the characteristics meant under b.

Article 8.3. Availability and use of personal protective equipment

1. If there is a hazard or a potential hazard to the safety or health of an employee in the workplace, sufficient quantities of personal protective equipment should be available to the employees who are or might be exposed to this hazard.
2. In the cases meant in the first paragraph it should be ensured that the employees use the personal protective equipment.
3. Personal protective equipment should be maintained, repaired and kept clean.
4. Personal protective equipment should be replaced when necessary so that it continues to function properly.

Section 2. Health and safety signs

Article 8.4. General requirements for health and safety signs

1. In order to avoid or restrict hazards to the health and safety of employees, the employer should make sure that if hazards in the workplace or the hazards of the work equipment give rise to it, effective health and safety signs are present.
2. With respect to the first paragraph detailed provisions will be laid down in a Ministerial Order.

Section 3

Article 8.5 [Repealed as of 01/11/1999]

Article 8.6 [Repealed as of 01/11/1999]

Article 8.7 [Repealed as of 01/11/1999]

Article 8.8 [Repealed as of 01/11/1999]

Article 8.9 [Repealed as of 01/11/1999]

Article 8.10 [Repealed as of 01/11/1999]

Article 8.11 [Repealed as of 01/11/1999]

Article 8.12 [Repealed as of 01/11/1999]

Section 4. Special sectors and special categories of employees

§ 1

Article 8.13 [Repealed as of 01/11/1999]

§ 2. Transport

Article 8.14. Health and safety signs

1. Section 2 of this Chapter does not apply to the health and safety signs used on or in an aircraft, seagoing vessel or inland vessel or a vehicle on the public road or railway insofar as these signs are prescribed under any other statutory provision.
2. If there are reasons for this, the health or safety signs meant in Article 8.4 should be used in or on the means of transport mentioned in the first paragraph when they are situated on the premises of the business or establishment.

§ 3. [Repealed as of 01-07-2012]

Article 8.15. [Repealed as of 01-07-2012]

Chapter 9. Obligations, offences, violations, administrative provisions and transitional and final provisions

Section 1. Designation of target groups to which the obligations stipulated under or pursuant to this Decree apply

Article 9.1. Obligations of the employer

The employer is obliged to comply with the provisions and prohibitions laid down in or pursuant to this Decree, with the exception of Articles 1.25, 2.6, 2.26 to 2.29, 2.32 to 2.34 and 7.2.

Article 9.1a. Obligations of the managing owner [Will take effect on a date yet to be decided]

The managing owner is obliged vis-à-vis seafarers who do not have an employer, to comply with the provisions and prohibitions which have been imposed on an employer by the Act or pursuant to this Decree.

Article 9.2. Obligations upon the employer in the event of location-independent work

The employer who commissions an employee to carry out location-independent work is obliged to comply with the provisions and prohibitions included in the following Articles:

- a. of Chapter 1: Articles 1.46, 1.47, second paragraph, 1.48, 1.49, second to sixth paragraph, 1.51 and 1.52;
- b. of Chapter 2: Articles 2.14, first paragraph, and 2.15;
- c. of Chapter 5: Articles 5.1 to 5.12;
- d. of Chapter 7: Articles 7.1 to 7.16, with the exception of 7.4a and 7.11a; and
- e. of Chapter 8: Articles 8.1 to 8.3.

Article 9.3. Obligations of the employee

1. If by virtue of the provisions in or pursuant to this Decree personal protective equipment or aids have been made available to the employee, the employee is obliged to use and keep clean this personal protective equipment and these aids in accordance with the applicable provisions. The previous sentence does not apply to the cases meant in Article 6.8, seventh paragraph, first sentence.

2. In addition, the employee is obliged to comply with the provisions and prohibitions included in the following Articles:
 - a. of Chapter 2: Article 2.42g;
 - b. of Chapter 3: Articles 3.5, 3.5g, first paragraph, and 3.5h, second, fourth and fifth paragraph;
 - c. of Chapter 4: Articles 4.1c, first paragraph, under g, j and k, 4.7, third paragraph, under c and d, 4.8, second, third and fourth paragraph, 4.9, second and third paragraph, 4.19, under a, 4.45, first paragraph, 4.47a, third paragraph, 4.48a, first and fourth paragraph, 4.50, fifth and sixth paragraph, 4.51, 4.54d, fourth, sixth and eighth paragraph, insofar as this relates to the certificates in the fourth and sixth paragraph, 4.58, first paragraph, 4.59, first paragraph, 4.60, first paragraph, 4.61, second to fifth paragraph, 4.61a, first paragraph, 4.61b, first paragraph, 4.86, third paragraph, 4.87a, third paragraph, under d, 4.89, first and fourth paragraph, 4.97, second paragraph, under d. 4.108 and 4.109, and also with regard to work with asbestos or asbestos-bearing products as meant in Article 4.37, the Articles 4.19, opening sentence and under a, and 4.20, third paragraph;
 - d. of Chapter 6: Articles 6.14, 6.14a, fifth paragraph, 6.15, first paragraph, under c, 6.16, first to third paragraph and fifth to eighth paragraph, 6.18, fourth paragraph, 6.19, first paragraph, 6.20, fourth paragraph, and 6.29;
 - e. of Chapter 7: Articles 7.5, second and third paragraph, 7.13, seventh paragraph, 7.17c, second, third, seventh and eighth paragraph, 7.18, second, fourth, sixth to eighth paragraph, and ninth paragraph, with respect to the application of procedures laid down meant in this paragraph, 7.18a, second paragraph, third paragraph, tenth paragraph, with respect to the application of the procedure laid down, meant in this paragraph, and thirteenth paragraph, 7.20, fourth paragraph, 7.21, second paragraph, 7.23c, first paragraph under b, 7.23d, first, third and fifth paragraph, 7.24, first paragraph, 7.25, sixth paragraph, and 7.32, first and second paragraph.
3. The obligations of employees mentioned in this Article do not apply to pupils and students in educational institutions.

Article 9.3a. Obligations of the seafarer [Will take effect on a date yet to be decided]

A seafarer who is not an employee is obliged to comply with the regulations and prohibitions imposed on an employee by the Act or pursuant to this Decree.

Article 9.4. Obligations upon the employee in the event of location-independent work

The employee who carries out location-independent work is obliged to comply with the provisions and prohibitions included in the Articles 1.46, first paragraph, and 1.53.

Article 9.5. Obligations of self-employed persons and co-operating employers

1. A self-employed person and an employer as meant in Article 16, seventh paragraph, under b, of the Act are obliged to comply with the provisions and prohibitions included in the following Articles:
 - a. of Chapter 1: Article 1.42;
 - b. of Chapter 3: Articles 3.2, first paragraph, 3.3, 3.4, 3.5, 3.5d, first and second paragraph, 3.5e, 3.5g, 3.5h, 3.6, first paragraph, 3.7, first paragraph, 3.16, 3.17, 3.28, first paragraph, 3.29, second and fifth paragraph, 3.30, 3.31, second paragraph, and 3.34, first paragraph;
 - c. of Chapter 4: Articles 4.1c, 4.1d, 4.3, second, third and fourth paragraph, 4.5, 4.8, 4.9, 4.10, second and third paragraph, 4.16, second, third and fourth paragraph, 4.17, 4.19, 4.45, 4.46, 4.47b, 4.47c, first paragraph, points a and e, 4.48a, second paragraph, items b and c, and fourth paragraph, 4.51a, first and third to fifth paragraph, 4.54, 4.54a, with due observance of Articles 4.54b, 4.54d, 4.58, 4.59, 4.60, 4.61, 4.61a, 4.61b, 4.62b, 4.87, 4.87a, 4.87b, 4.89, 4.94, 4.95, 4.108, 4.109, and 9.15, under a, sub 1° to 4°, and under b;
 - d. of Chapter 6: Articles 6.8, ninth paragraph, 6.14a, 6.15a, 6.16, 6.17, 6.18, 6.19, first paragraph, 6.20, 6.29 and 6.29a;
 - e. of Chapter 7: Articles 7.3, fourth paragraph, 7.4, first and second paragraph, insofar as this relates to agricultural trucks weighing at least 800 kg, third and fourth paragraph, 7.5, second,

- third and fifth paragraph, 7.7, first paragraph, 7.9, 7.11, second paragraph, 7.16, 7.17a, first, second and fifth paragraph, 7.17b, second paragraph, 7.17c, second paragraph, 7.18, second, fourth, sixth and seventh paragraph, 7.18a, third and thirteenth paragraph, 7.18b, first paragraph, 7.20, fourth paragraph, 7.21, 7.23, 7.23a tot 7.23d, 7.25, first, sixth and seventh paragraph, 7.27, second paragraph, 7.28, 7.32, first and second paragraph, and 7.34, second and third paragraph;
- f. of Chapter 8: Article 8.3, second, third and fourth paragraph;
- g. of the Act: Articles 10, 11 and 32.
2. In addition to the first paragraph a self-employed person and an employer as meant in Article 16, paragraph seven, item b, of the Act, exploiting an establishment to which Article 2.3 applies, are also obliged to comply with Section 2 of Chapter 2 and Article 19, paragraph one, of the Act.
3. In addition to the first paragraph a self-employed person and an employer as meant in Article 16, seventh paragraph, item b, of the Act who perform work in connection with the construction of a structure on a building site are also obliged to comply with:
- a. Article 19, first paragraph, of the Act;
- b. Article 2.35;
- c. the Articles of Chapter 7 insofar as they are not mentioned in the first paragraph, item e, and
- d. Articles 8.1, first to fifth and seventh paragraph, 8.2 and 8.3, first paragraph.
4. In addition to the first paragraph, a self-employed person and an employer as meant in Article 16, seventh paragraph, item b of the Act, who are while working exposed to crop protection products or biocides as meant in Article 1 of the Crop Protection Products and Biocides Act, are also obliged to comply with the following Articles:
- a. of Chapter 3: Article 3.23;
- b. of Chapter 4: Articles 4.6 and 4.7, bearing in mind that Article 4.7 applies *mutatis mutandis* to a self-employed person;
- c. of Chapter 8: Articles 8.1, sixth paragraph, and 8.4.
5. In addition to the first paragraph, a self-employed person and an employer as referred to in Article 16, seventh paragraph, under b, of the Act are also obliged to comply with the regulations and prohibitions set out in the following Articles, unless:
- a. it involves work that he carries out on behalf of a client as referred to in Article 1.1, first paragraph, under c, sub 2°, with him being the only contracting party;
- b. it involves work that he carries out on behalf of a client, with several other contracting parties who are not concurrently present with him on the work location; or
- c. it involves work carried out on behalf of several clients, with several other contracting parties who are not concurrently present with him on the work location:
- 1°. of Chapter 3: the Articles 3.1b, 3.2, second paragraph, 3.5d, third, fourth and sixth paragraph, 3.7, second to sixth paragraph, 3.9, 3.11, 3.12, 3.13, 3.14, 3.15, 3.19, 3.27, 3.28, second paragraph, 3.29, first, third and fourth paragraph, 3.31, first paragraph, 3.35, first and third paragraph, 3.37, 3.37g, 3.37h, 3.37k, 3.37m, 3.37p, 3.37t, first paragraph, 3.37y and 3.48;
- 2°. of Chapter 4: the Articles 4.4, 4.6, 4.7, first, second and third paragraph, 4.18, second, third and fourth paragraph, 4.47a, first and third to eighth paragraph, 4.47c, first paragraph, under a, b, c, e and f, and second paragraph, 4.51, 4.51a, second paragraph, 4.88, 4.98, 4.99, 4.100, 4.101 and 4.105;
- 3°. of Chapter 5: the Articles 5.2, 5.3, under a, 5.4, 5.6, 5.10 and 5.13a;
- 4°. of Chapter 6: the Articles 6.1, 6.2, 6.3, 6.4, 6.8, first to fourth, sixth, seventh, tenth and eleventh paragraph, 6.9, 6.11c, second and third paragraph, 6.12, 6.12c, 6.12e, first, third to fifth paragraph, 6.14, 6.15, 6.19, second to fourth paragraph, 6.20b, 6.27, 6.29b and 6.29c;
- 5°. of Chapter 7: the Articles 7.3, second, third paragraph, 7.4, second paragraph, 7.4a, 7.5, first paragraph, 7.6, 7.7, second to seventh paragraph, 7.8, 7.10, 7.11, first paragraph, 7.13, 7.14, 7.15, 7.17a, third, fourth, sixth and seventh paragraph, 7.17b, third to sixth paragraph, 7.17c, first, third to eighth paragraph, 7.17d, 7.18, first, third and fifth paragraph, 7.18a, first, second, fifth, eighth to twelfth paragraph, 7.18b, second to fourth paragraph, 7.20, first to third, fifth to seventh paragraph, 7.24, 7.25 second to fifth paragraph, 7.26, 7.27, first paragraph, 7.29,

7.30, 7.34, first paragraph, 7.35 and 7.36b;
6°. of Chapter 8: the Articles 8.1, first to fifth paragraph, seventh and eighth paragraph, and 8.4.

Article 9.5a. Obligations of those providing work to volunteers

1. A party who provides work to volunteers is obliged to comply with the provisions and prohibitions with regard to those volunteers which are included in the following Articles:
 - a. of the Act: Articles 3, 4, 5 and 18 insofar as this relates to work with dangerous substances, and biological agents to which Chapter 4 of the Decree applies, 6 to 11, 16 to 44;
 - b. of Chapter 3: Articles 3.2, first paragraph, 3.3, 3.4, 3.5, 3.5d, first paragraph, 3.5g, 3.5h, 3.6, first paragraph, 3.16 and 3.17;
 - c. of Chapter 4: Articles 4.1b to 4.10d, 4.13 to 4.21, 4.23, 4.44 to 4.54d, 4.58 to 4.61, 4.61a, 4.61b, 4.62b, 4.84 to 4.102, 4.108 and 4.109;
 - d. of Chapter 5: Articles 5.2 and 5.3, opening sentence and under a and 5.13a;
 - e. of Chapter 6: Articles 6.8, first to third, seventh, ninth, tenth and eleventh paragraph, 6.11c, second paragraph, 6.12, first and second paragraph, 6.12e, first, second and fourth paragraph, 6.13, 6.14, 6.14a, 6.14b, 6.15, 6.15a, 6.16, 6.17, 6.18, 6.19 and 6.20;
 - f. of Chapter 7: Articles 7.3, second to fourth paragraph, 7.4, 7.5, second, third and fifth paragraph, 7.7, first paragraph, 7.9, 7.11, second paragraph, 7.16, 7.17a, first, second and fifth paragraph, 7.17b, first and second paragraph, 7.17c, first and second paragraph, 7.18, second, third, fourth, sixth and seventh paragraph, 7.18a, third and thirteenth paragraph, 7.18b, first paragraph, 7.23, 7.23a to 7.23d and 7.32 to 7.35;
 - g. of Chapter 8: Articles 8.1, second, seventh and eighth paragraph, and 8.4.
2. The person meant in the first paragraph is also obliged toward volunteers below the age of 18 to comply with the provisions and prohibitions with regard to those volunteers which are included in Articles 1.37, first paragraph, first sentence, and second paragraph, 3.46, 6.27 and 7.39.
3. The person meant in the first paragraph is also obliged toward pregnant or breast-feeding volunteers to comply with the provisions and prohibitions with regard to those volunteers which are included in Articles 1.42, 1.42a, 3.48, 6.29, 6.29a, 6.29b and 6.29c.

Article 9.5b. Obligations of persons performing work or having work performed in the territorial waters or the exclusive economic area

1. Anyone performing work or having work performed in the territorial waters or in the exclusive economic area is obliged to transport the supervisor in the exercise of his or her duties to the locations indicated by the supervisor where this work is being performed, provided that this transport takes place between 7.00 a.m. and 8.00 p.m.
2. In the event of accidents at work that lead to death, lasting injury or hospital admission, or where performance of work could cause serious danger to the safety or health of employees or self-employed persons, transport shall take place according to the instructions of the designated supervisor at any time of the day or night.

Article 9.6. Obligations of the client

The client is obliged to comply with the provisions included in Articles 2.26 to 2.29 and 2.32.

Article 9.7. Obligations of the designing party

The designing party is obliged to comply with the provisions included in Article 2.34.

Article 9.8. Obligations of the implementing party

The implementing party is obliged to comply with the provisions included in Articles 2.29 and 2.33.

Article 9.9. Obligations of the lift owner or manager

The owner or manager of a lift is obliged to comply with the provisions included in Article 7.21.

Section 2. Offences and violations

§ 1. Offences

Article 9.9a. Minor offences

1. An offence is regarded an action or omission which contravenes the provisions and prohibitions included in the Articles 1.46, first paragraph, 2.5a, first and second paragraph, 2.5b, first to fourth paragraph, 2.5c, first, third and fourth paragraph, 2.5d, 2.5e, first paragraph, 2.5f, 2.5g, first and second paragraph, 2.5h, and the Articles of the Ministerial Order laid down on the basis of the Act and this Decree, insofar as and in the manner specified in that Order.
2. Insofar as exemption subject to certain requirements has been granted from the Articles meant in the first paragraph, the action or omission contravening these requirements is also regarded as an offence.

§ 2. Violations

Article 9.9b.

1. Actions or omissions that contravene the provisions included in the following Articles are regarded as violations with respect to which an administrative fine might be imposed:
 - a. of Chapter 1: Articles 1.36, 1.37, first and second paragraph, 1.38, 1.41, 1.42, 1.42a, 1.46, second to eleventh paragraph, 1.48, 1.49, second to sixth paragraph, 1.51 up to 1.53;
 - b. of Chapter 2: Articles 2.1, 2.13, 2.14a, first and second paragraph, 2.15, 2.26 to 2.29, 2.32 to 2.35, 2.41, 2.42, second to fourth and sixth paragraph, 2.42a up to 2.42c, 2.42e, first paragraph, 2.42f, first to third paragraph, 2.42g, 2.42h and 2.43, second paragraph;
 - c. of Chapter 3: Articles 3.1b, 3.2, 3.3, 3.4, first to third paragraph, 3.5, first to fourth and seventh paragraph, 3.5b, second paragraph, 3.5c up to 3.5g, first, second and fourth paragraph, 3.5h, second to fifth paragraph, 3.6 up to 3.15, 3.16, first and fifth paragraph, 3.17 up to 3.25, 3.27 up to 3.31, 3.33 up to 3.35, 3.37 up to 3.37t, 3.37u, 3.37v, first to third paragraph, 3.37w, 3.37y, 3.46 and 3.48;
 - d. of Chapter 4: Articles 4.1b, 4.1c, 4.1d, 4.2, first to eighth paragraph, 4.2a, 4.3, second to fourth paragraph, 4.4, 4.5, first to third paragraph, 4.6, first and second paragraph, 4.7, 4.8, first to fourth paragraph, 4.9, first to third paragraph, 4.10, second and third paragraph, 4.10a, first, second, fourth and fifth paragraph, 4.10b, first and second paragraph, 4.10c, fourth and fifth, 4.10d, 4.13, 4.15, 4.16, second to fourth paragraph, 4.17, 4.18, 4.19, 4.20, 4.23, second paragraph, 4.45, first paragraph, 4.45a, 4.45b, 4.46, 4.47, first, second and fifth to eighth paragraph, 4.47a, first, third to sixth and eighth paragraph, 4.47b, 4.47c, first and second paragraph, 4.48a, first, second and fourth paragraph, 4.50, 4.51, 4.51a, first to fourth paragraph, 4.52, first, third and fourth paragraph, 4.53, first to third paragraph, 4.54, 4.54a, 4.54d, first and third to ninth paragraph, 4.58, 4.59, first and second paragraph, 4.60, first and third paragraph, 4.61, second to fifth paragraph, 4.61a, first and third paragraph, 4.61b, first paragraph, 4.62b, 4.85, 4.86, third paragraph, 4.87, 4.87a, first to third paragraph, 4.87b, 4.88 to 4.90, 4.91, first to third, fifth, sixth and tenth paragraph, 4.94, first, third and fifth paragraph, 4.95 to 4.100, first paragraph, 4.101, 4.102, 4.105, 4.106, 4.108, and 4.109;
 - e. of Chapter 5: Articles 5.2 to 5.5, 5.9 to 5.11 and 5.13a;
 - f. of Chapter 6: Articles 6.1, 6.2, first to fourth and sixth paragraph, 6.3, 6.4, 6.7, first to fourth paragraph, sixth and eighth paragraph, 6.8, first, third, fourth to seventh, and ninth to eleventh paragraph, 6.9 up to 6.11, 6.11b, first to fourth paragraph and sixth paragraph, 6.11c, first to third paragraph, 6.11d, 6.11e, first, second and fourth paragraph, 6.12, first to fifth paragraph, 6.12d, first to sixth, ninth and tenth paragraph, 6.12e, first to fifth paragraph, 6.12f, 6.12g, 6.14, 6.14a,

- first to third and fifth paragraph, 6.15, 6.15a, 6.16, first to third and fifth to eighth paragraph, 6.17, first, second and third paragraph, 6.18 to 6.20, 6.20b, 6.20e, 6.27, 6.29 to 6.29c;
- g. of Chapter 7: Articles 7.2, first paragraph, 7.3 up to 7.4a, first to sixth paragraph, 7.5 up to 7.11a, 7.13, 7.14, first paragraph, 7.15 up to 7.17a, first, second and fourth up to seventh paragraph, 7.17b, second up to sixth paragraph, 7.17c up to 7.18a, second up to thirteenth paragraph, 7.18b, 7.20, 7.21, 7.23 up to 7.23c, 7.24 up to 7.29, second up to eighth paragraph and tenth paragraph, 7.30, first paragraph, 7.32, first and second paragraph, 7.34, 7.35, 7.36b and 7.39;
 - h. of Chapter 8: Articles 8.1 to 8.4, first paragraph;
 - i. of Chapter 9: Article 9.36, first paragraph;
 - j. the Articles of the Ministerial Order laid down on the basis of the Act and this Decree, insofar as and in the manner specified in that Order.
2. Insofar as an exemption subject to certain requirements has been granted from the Articles meant in the first paragraph, the action or omission contravening these requirements is regarded as a violation with respect to which an administrative fine can be imposed.

Article 9.9c. [Repealed as of 01-01-2013]

Section 3. Administrative law provisions

§ 1. Administrative enforcement and the preventive shutting down of work

Article 9.10. Administrative enforcement order

It is possible to impose an administrative enforcement order with regard to the compliance with the stipulations set out in Article 9.9b, first paragraph and the regulations referred to in the second paragraph of that Article.

Article 9.10a. Shutting down work because of a repeated offence

1. In the event of a repeated violation or a similar violation, a warning will be issued as referred to in Article 28a, first paragraph, of the Act and if the repetition of this violation or a similar violation is established as referred to in that Article of the Act, an order will be issued by the designated official to the effect that the work specified by the latter must be shut down or may not commence for a period indicated by the official.
2. If a serious violation is established, then – contrary to the first paragraph – a warning as referred to in Article 28a, first paragraph, of the Act, will be issued for the first violation and if the violation or a similar violation is established again that is again of a serious nature, an order will be issued by the designated official to the effect that the work specified by the latter must be shut down or may not commence for a period indicated by the official.
3. A serious violation as referred to in the second paragraph is understood to mean:
 - a. a violation whereby the employer intentionally carried out acts or omissions that are contrary to the Act or its corresponding provisions and which caused an occupational accident that almost immediately resulted in death;
 - b. acts or omissions that are in violation of the following Articles:
 - 1°. of Chapter 4: the Articles 4.54d, first paragraph, 4.58, 4.59, first and second paragraph, 4.60, first and second paragraph, and 4.61, second paragraph, 4.61a, first and third paragraph, 4.61b, 4.105, 4.108 and 4.109;
 - 2°. of Chapter 6: the Articles 6:27, 6.29 and 6.29a.
4. If the nature of the violation, the circumstances relating to the violation or the consequences of shutting down the work give rise to this, it may be possible to decide not to issue a warning as referred to in the first and second paragraph nor to impose an order as referred to in the first and second paragraph.

5. A warning as referred to in the first and second paragraph is not issued and an order as referred to in the first and second paragraph is not imposed if, pursuant to the policy guidelines referred to in Article 34, tenth paragraph of the Act, the penalty standard amount for the administrative fine referred to in the first and paragraph falls below the penalty standard amount to be established by Ministerial Order.

Article 9.10b. Classification of serious violations

Serious violations in the sense of Article 34, sixth and ninth paragraph of the Act are understood to mean the violations referred to in Article 9.10a, third paragraph.

Article 9.10c. Classification of similar violations

The similar obligations and prohibitions, as referred to in Article 34, fifth and seventh paragraph, and the similar violations referred to in Article 9.10a, first and second paragraph, are designated by Ministerial Order.

§ 2. Exemption or dispensation

Article 9.11 Request for exemption or dispensation

A request for exemption or dispensation from the provisions set out in the Act must be filed electronically. Article 2.1, first paragraph, second sentence, applies accordingly.

Article 9.12 [Repealed as of 08/03/2005]

Article 9.13 [Repealed as of 08/03/2005]

Article 9.14. Exemption or dispensation from specific substance prohibitions

Dispensation or exemption from the prohibition set out in Article 4.59, first paragraph, can only be granted for:

- a. the use of substances for research and tests including analyses;
- b. activities aimed at the removal of the substances present in a mixture or solution in a concentration below 0.1 of weight percentage;
- c. production processes whereby the substances are manufactured in a closed process installation and are converted in this into other substances without the substances in the meantime being taken out of the process installation other than insofar as this is required for checking the production process and the maintenance of the process installation.

Article 9.15. Exemption from specific substance prohibition

In cases whereby exemption is granted from the prohibitions set out in Article 4.59, the following applies:

- a. if there is the intention of manufacturing, using or keeping in stock the substance mentioned in the exemption, the following information should be notified in writing to a supervisor designated to this end:
 - 1°. the identity of the substance to be manufactured or used or to be kept in stock;
 - 2°. the quantity of the substance to be manufactured or used or kept in stock each year;
 - 3°. the location at which the substance will be manufactured, used or kept in stock;
 - 4°. the types of work to be carried out with the substance;
 - 5°. the number of employees who might be exposed to the substance within the scope of their work;
 - 6°. the manner in which and the extent to which the employees might be exposed to the substance during their work;
 - 7°. the measures taken to prevent employees from being exposed to the substance during their work;
- b. if there is an intention to effect a major change in the circumstances underlying the information

submitted under the provisions set out under a, the information meant in this paragraph should be notified in writing once again to a supervisor designated to this end;

Article 9.16. Dispensation from specific substance prohibition

With respect to an application for a dispensation from the prohibitions set out in Article 4.59, the reasons for the application must be given and the information meant in Article 9.15, under a, should be submitted.

Article 9.16a. Exemption or dispensation from replacement obligation of volatile organic substances

Exemption or dispensation from Article 4.62b may only be granted in cases whereby it is technically not feasible to use substances which are not harmless or less harmful than volatile organic substances or products containing these substances.

Article 9.17. Exemption or dispensation from noise provisions

1. Exemption or dispensation from Article 6.8, seventh paragraph, first sentence, ninth, tenth and eleventh paragraph, will only be granted when in exceptional circumstances the full and correct use of individual ear protectors might result in greater health and safety risks than if these protectors were not used.
2. Conditions will be attached to an exemption or dispensation as meant in the first paragraph in order to guarantee, taking the special circumstances into account, that:
 - a. the health and safety risks resulting from this will be limited to a minimum and
 - b. the respective employees will be under tighter medical supervision.
3. An exemption or dispensation as meant in the first paragraph will only be granted for a period of not more than four years.

Article 9.17a. Exemption conditions with regard to vibrations

Exemption from Article 6.11c, second paragraph, can only be granted if:

- a. the exposure remains usually under the action values meant in Article 6.11a, second paragraph, item b, and third paragraph, item b;
- b. when the action value is exceeded, this is incidental in nature;
- c. the average exposure over a 40-hour period remains under the limit value for exposure;
- d. there is evidence that the exposure pattern risks are less than the risks of exposure to the exposure limit value;
- e. the risks resulting from this are restricted to a minimum;
- f. the respective employees and the Works Council or staff representation body or, failing these, the interested employees were consulted in advance about the nature and contents of the application for an exemption, and
- g. the respective employees are under tighter health supervision.

Article 9.17b. Exemption for seagoing vessels and aircraft

The exemption of Article 6.11c, second paragraph can be granted to seagoing vessels and aircraft, insofar as this relates to the limit value meant in Article 6.11a, third paragraph, item a, if:

- a. considering the latest technology and the specific characteristics of the workplace, it is not possible despite the implementation of technical and/or organisational measures, to comply with the limit value for exposure to body vibrations;
- b. the risks resulting from this are restricted to a minimum, and
- c. the respective employees are under tighter health supervision.

Article 9.18. Exemption or dispensation with respect to loading and unloading vessels

1. Exemption or dispensation from Articles 7.24 to 7.28 can only be granted:
 - a. with respect to places where the traffic is irregular;
 - b. with respect to inland vessels with a length of less than 55 metres, seagoing vessels smaller than 500 GT or fishing vessels as meant in Article 1 of the Ships Act.
2. Exemption or dispensation from Article 7.29 can only be granted:
 - a. with respect to places where the traffic is irregular;
 - b. with respect to inland vessels with a length of less than 55 metres or seagoing vessels smaller than 500 GT.

Article 9.19. Restriction to exemption or dispensation possibilities

No exemption or dispensation can be granted with regard to the provisions and prohibitions, meant in the following Articles and the provisions based on them:

- a. of Chapter 1: the Articles of Sections 8 and 9;
- b. of Chapter 2: the Articles of Sections 5, 6 and 6a;
- c. of Chapter 3: Article 3.1b, the Articles of division 2a of Section 1 and of the Sections 2, 3, 3a, 3b and 3c and the divisions 4 and 5 of Section 5;
- d. of Chapter 4: the Articles of Section 1, with the exception of Articles 4.8, 4.9 and 4.10, the Articles of parts 2, 5, 6, 7, with the exception of Article 4.62b, and 9 and the Articles of the divisions 2, 3 and 4 of Section 10;
- e. of Chapter 5: the Articles of Sections 1 and 2 and Article 5.14;
- f. of Chapter 6: the Articles of Sections 1 and 2, 3, with the exception of Article 6.8, seventh paragraph, first sentence, ninth, tenth and eleventh paragraph, Section 3a, with the exception of Article 6.11c, second paragraph, Section 4a, Section 5a, and the Articles of the divisions 3 and 4 of Section 6;
- g. of Chapter 7: the Articles of the Sections 1, 2, 3 and 4, with the exception of the Articles 7.20, sixth paragraph, and 7.21, and the Articles of the Sections 5, with the exception of Article 7.32, and 5a and paragraph 2 of Section 6;
- h. of Chapter 8: the Articles of Sections 1 and 2;
- i. of Chapter 9: Articles 9.15 and 9.16.

Article 9.20. Duration of the exemption or dispensation

Exemptions or dispensations are only granted for a limited duration and will in any event be withdrawn when the reasons for which they were granted have lapsed.

§ 3. Compliance requirement

Article 9.21 [Repealed as of 01/11/1999]

Article 9.22. Compliance requirement

1. A requirement may be made in accordance with Article 27, first paragraph, of the Act concerning the manner in which the provisions laid down pursuant to Articles 6, first paragraph, and 16 of the Act should be complied with.
2. The first paragraph does not apply in cases as meant in Article 1.33.
3. Moreover, the first paragraph does not apply to the following Articles either:
 - a. of Chapter 1: Articles 1.26 to 1.32 and 1.34;

- b. of Chapter 4: Articles 4.1c, first paragraph, item k, 4.58, 4.59, 4.60, first and third paragraph, 4.61, second paragraph, 4.61b, 4.105, 4.108, 4.109 and 4.110;
 - c. of Chapter 6: Articles 6.27, 6.29 and 6.29a.
4. When a requirement has been imposed on the employer or employee to which both Section 2 and Section 4 or 6 of Chapter 1 applies, the provisions with regard to this and set out in Section 4 or 6 should be observed.
 5. A requirement to which Section 2 of Chapter 2 applies which is related to a regulation attached to a permit by virtue of one of the environmental protection laws for the foundation, putting into operation, operation, expansion or alteration of a company or establishment or for the alteration of a method used in it, that has one or more areas of common ground of such a nature that it can come into conflict with that regulation, shall not be imposed by the supervisor designated to this end before consultations have been held with the authority that issued the permit.
 6. When a requirement has been imposed on an employer or employee to which Section 4 or 6 of Chapter 1 applies, the provisions regarding this and set out in that Section should be observed.
 7. If with respect to one or more provisions of this Decree a requirement of compliance has been imposed in accordance with Article 27, first paragraph, of the Act, in this situation it is no longer possible to grant a dispensation from the respective requirement or the respective requirements.

Section 4. Transitional provisions and final stipulations

§ 1 [Repealed as of 01/01/2007]

Article 9.23 [Repealed as of 01/01/2007]

§ 2 [Repealed as of 01/01/2007]

Article 9.24 [Repealed as of 01/01/2007]

Article 9.25 [Repealed as of 01/11/1999]

Article 9.26 [Repealed as of 01/11/1999]

Article 9.27 [Repealed as of 01/01/2007]

Article 9.28 [Repealed as of 01/01/2007]

Article 9.29 [Repealed as of 01/01/2007]

Article 9.30 [Repealed as of 01/01/2007]

Article 9.31 [Repealed as of 01/01/2007]

Article 9.32 [Repealed as of 01/01/2007]

Article 9.33 [Repealed as of 01/01/2007]

§ 3. Transitional law

Article 9.34. Additional assessment and evaluation of safety risks; work safety reporting

1. Article 1, Parts A to I, O, P, T and V of the Royal Decree of 7 February 2004 for amendments to the Working Conditions Decree in order to replace the provisions with regard to work safety reporting by additional provisions with regard to the risk assessment and evaluation and some other amendments

- (Bulletin of Acts and Decrees 2004, 69) is not applicable up to two years after it comes into force unless this Decree was applied before this time.
2. With regard to businesses or establishments in which on the day on which the Decree meant in the first paragraph comes into force a work safety report is being disposed of as meant in Article 2.2b, as this Article read on the day before the said Decree came into force, contrary to the first paragraph the said Decree will not be applicable until the time at which the work safety report should have been reviewed pursuant to Article 2.2b, second paragraph, as this Article read on the day before the said Decree came into force, but not later than up to five years after the time at which the work safety report is fully reviewed and sent in its full form to the designated supervisor, unless that Decree is applied before that time.
 3. The notification meant in Article 2.5g, first paragraph, with regard to businesses or establishments which are in operation on the day on which the Decree meant in the first paragraph is applied pursuant to the first or second paragraph, should take place within six weeks after the application of the said Decree.
 4. The Working Conditions Decree as this read on the day before the Decree meant in the first paragraph came into force, is applicable until the time at which the said Decree is applied pursuant to the first or second paragraph.

Article 9.35. [Repealed as of 01-07-2012]

Article 9.35a. [Repealed as of 01-07-2012]

Article 9.36.

1. If young employees are carrying out work consisting of driving trucks on the public road and of connecting or disconnecting trailers or equipment directly related to this, they should in addition to Article 7.39, under a, be in the possession of a certificate of competence issued by an institution designated to this end by Our Minister.
2. This Article will be repealed at a date to be determined in a Royal Decree.

Article 9.36a [Repealed as of 01/01/2007]

Article 9.37. Explosive atmospheres

Article 3.5e does not apply to work equipment for use in areas where an explosive atmosphere might occur which have been taken into use before 30 June 2003.

Article 9.37a. Vibrations

1. Article 6.11c, second and third paragraph, is not applicable until 6 July 2010 if work equipment is being used which was provided to the employees before 6 July 2007 and whereby the limit values for exposure considering the latest technical developments and despite the implementation of organisational measures cannot be observed.
2. Contrary to the first paragraph, Article 6.11c, second and third paragraph, is not applicable until 6 July 2014 to work equipment as meant in the first paragraph used in agriculture and forestry.
3. With respect to the conditions meant in the first paragraph detailed provisions can be laid down in a Ministerial Order.

Article 9.37b. Certificate

A certificate issued pursuant to the Act and valid on the day prior to the date on which the Decree of 7 September 2009, Bulletin of Acts and Decrees 395, takes effect, is deemed to have been issued in

observance of the provisions of or pursuant to this Decree as of the date on which the said Decree takes effect, without prejudice to the provisions of or pursuant to Articles 1.5g and 1.5i.

Article 9.37c. Designation of certifying institution on request

1. A designation as a certifying institution issued pursuant to the Act and valid on the day prior to the date on which the Decree of 7 September 2009, Bulletin of Acts and Decrees 395, takes effect, is deemed to have been issued in observance of the provisions of or pursuant to this Decree as of the date on which the said Decree takes effect.
2. Without prejudice to the provisions of paragraphs 3 and 6, the designation referred to in the first paragraph expires by law 24 months following the date on which the Ministerial Order referred to in 1.5a(2) takes effect for the field of work in which the institution in question operates.
3. The designation referred to in the first paragraph, which lapses prior to the expiry date referred to in the second paragraph, expires by law on the original expiry date unless the institution in question has submitted a request for assessment for a renewal of the designation to the Accreditation Council Foundation in Utrecht within five month of the date on which the Ministerial Order, as referred to in Article 1.5a(2), applying for the field of work in which the institution operates, takes effect and prior to the original expiry date. In that case, the designation remains in effect until no later than the statutory expiry date referred to in the second paragraph.
4. The institution for which the designation expires pursuant to the second or third paragraph may apply to Our Minister for a renewed designation in observance of the provisions of or pursuant to this Decree, in their form as of the date on which the Decree of 7 September 2009, Bulletin of Acts and Decrees 395, took effect.
5. By way of departure from Article 1.5b(4), the costs associated with the assessment by the Accreditation Council Foundation referred to in the third paragraph shall be borne by Our Minister if the institution referred to in the first paragraph has submitted an application for assessment of a renewed designation to the aforementioned Accreditation Council Foundation within five months of the date on which the Ministerial Order referred to in Article 1.5a(2) for the field of work in which the institution operates takes effect.
6. If Our Minister decides on an application for a renewed designation on a date prior to the statutory expiry date referred to in the second paragraph, the original designation expires on the date on which the new designation takes effect.

Article 9.37c [Repealed as of 01/11/1999]

§ 4. Final stipulations

Article 9.38 [Repealed as of 01/01/2007]

Article 9.39. Amendments to Annexes of EC Directives

For the purposes of application of this Decree and the provisions based on it, an amendment to one of the Annexes of an EC Directive which is referred to in this Decree, will become effective as from the date on which implementation of the respective amendment directive should have taken place, unless another date has been determined in a Ministerial Order published in the *Government Gazette*.

Article 9.40 [Repealed as of 01/01/2007]

Article 9.41. Official title

This Decree is called: the Working Conditions Decree.

Ordain and order that this Decree with its associated explanatory memorandum be entered into the *Bulletin of Acts and Decrees*.

The Hague, 15 January 1997

Beatrix

The State Secretary of Social Affairs and Employment,

F. H. G. de Grave

The Minister of Education, Culture and Science,
J. M. M. Ritzen

The Minister of the Interior and Kingdom Relations,
H. F. Dijkstal

The Minister of Transport, Public Works and Water Management,
A. Jorritsma-Lebbink

The Minister of Justice,
W. Sorgdrager

The State Secretary of Defence
J. C. Gmelich Meijling

The Prime Minister, Minister of General Affairs,
W. Kok

Issued the twenty fifth of February 1997

The Minister of Justice,
W. Sorgdrager