

Working Conditions Regulations - Annexes

Annex I., relating to Article 2.0

The safety management system referred to in Article 2.5a, paragraph two, of the Decree deals with the following issues:

- a. those parts of the general management system comprising the organisational structure, responsibilities, customs, procedures, working and production methods used and resources which allow the policy for preventing major accidents to be determined and implemented;
- b. organisation and staff: the duties and responsibilities of staff involved in the management of risks of major accidents at all organisational levels, recognition of needs for training those staff, organising the training and ensuring that staff, contractors and sub-contractors participate in it;
- c. identification of hazards and assessment of the risks of major accidents as referred to in Article 2.5b, paragraph one, of the Decree;
- d. monitoring implementation: determining and implementing procedures and instructions for managing safety aspects of the business's operations, including maintenance of installations and temporary shut-downs;
- e. change management: determining and applying procedures for planning changes relating to the business, establishment, or part thereof, or the working and production methods used, or in relation to the development of new working or production methods;
- f. planning for emergencies: determining and applying procedures for the systematic identification of emergencies and for devising, practising and testing the emergency plans. All employees on the site are involved in practising emergency plans, including relevant contractors and sub-contractors;
- g. monitoring performance: determining and applying procedures for ongoing assessment of observation of the aims of the policy aimed at preventing major accidents and the safety management system, as well as the introduction of arrangements for investigating and correcting any failure to observe the policy's aims. These procedures include the system for notifying major accidents and near-misses, especially those in which protective measures failed, their investigation, and follow-up action, taking account of experience from the past in all cases;
- h. audits and evaluation: determining and applying procedures for the systematic, periodic evaluation of the policy aimed at preventing major accidents and the suitability and functionality of the safety management system, and for documented analysis by the employer of the results of the policy in place, the safety management system and its updating.

Annex II, relating to Article 2.0c

The internal emergency plan as referred to in Article 2.5c of the Decree contains the following data and descriptions:

- a. the name and position of individuals authorised to initiate emergency procedures and of the person responsible for directing and coordinating measures to deal with an accident within the business or establishment;
- b. the name and position of the person responsible for contact with the authorities responsible for the external emergency plan;
- c. in respect of foreseeable circumstances or events that might have a significant role in the occurrence of a major accident, a description of the measures to be taken to manage the situation or event and to limit its consequences, including a description of the safety equipment and resources available;
- d. the measures to limit risks to individuals within the business or establishment, including the alarm system and instructions on how to behave if the alarm goes off;
- e. the arrangements to rapidly notify the authority responsible for launching the external emergency plan in case of an accident, the information that must be given immediately and arrangements for passing on more detailed information once it becomes available;
- f. the arrangements to train employees in carrying out tasks that they are expected to perform and where necessary coordinating with the external emergency response services for this purpose;
- g. the arrangements for assisting with action taken by external agencies dealing with an accident.

Annex III. relating to Article 3.1

Construction site notification model

1. Nature of the construction site:
2. Complete address of the construction site:
Tel.:
Fax:
3. Names and addresses of the parties involved
 - a.
 - b.
 - c.
 - d.
 - e.
4. Probable date for the start of the construction activities:”
5. Probable duration of the construction activities:
6. Probable maximum number of employees who will be on the site at the same time:
7. Probable number of employers and self-employed people on the construction site:
8. Name of firms already selected:
9. Date of notification:
10. Client's signature:

Annex IV. relating to Article 3.9, item b

Where applicable, the information referred to in Article 3.9, item b, relates to:

- a. a map showing the inter- and intra-field pipelines as well as any worked-out mineshafts that run under water;
- b. general drawings of the position and ground plan of the land-based mine working referred to in Article 3.6, paragraph one, item a, or the structure and configuration of the mine installation referred to in Article 3.6, paragraph one, items b, c and d;
- c. front and side views of the mine working;
- d. a flowchart of the entire process of handling minerals including a mass balance;
- e. drawings of pipes, instruments used in the process systems and ancillary systems (these drawings are supplied only at the request of an supervisor);
- f. drawings of hazard zones;
- g. cause and effect drawings for the alarm and containment systems;
- h. drawings of the design and location of fire and gas detection systems;
- i. drawings of fire protection equipment;
- j. drawings of rescue apparatus and escape routes;
- k. Heating Ventilation Air Conditioning (HVAC) drawings;
- l. a diagram of all call, alarm and communication systems;
- m. drawings of the structure of the call and alarm system;
- n. a description of the electrical system using a single-line diagram showing the emergency systems;
- p. the location and capacity of premises used to store dangerous substances;
- q. the location of premises used to store chemicals, and
- r. the location of premises used to store explosives.

Annex V. relating to Article 3.9, item c

The information relating to the fire-fighting plan referred to in Article 3.9, item c, relates to:

1. a ground plan of the mine working referred to in Article 3.6, paragraph one, and, where necessary, a location sketch of all the installations present at the mine working, staff rooms and other premises, showing:
 - a. the locations and rooms in which substances presenting a high risk of fire are received, handled, processed, used, transported or stored, and the locations and rooms where substances that can cause a direct or indirect danger of explosion are received, handled, processed, used, transported or stored, along with their immediate surroundings;
 - b. the locations where gas or fluid (possibly for combustion) is tapped;
 - c. the locations where manual and automatic fire warning equipment with their alarm signals are installed; the type of signal must be specified;
 - d. the locations where small or large fire extinguishers are kept, specifying the model, type (manual or automatic) and capacity of each of these extinguishers;
 - e. the total number and type of manual fire extinguishers per room; the locations where pumps to provide water for fire-fighting are kept, the capacity of these pumps, the locations where hydrants and fire-fighting hoses are kept and where fire-fighting hoses can be connected to the fire-fighting water supply;
 - f. if the fire-fighting plan relates to a land-based mine working as referred to in Article 3.6, paragraph one, item a: the presence of ponds and ditches if fire-fighting water can be drawn from the surface water where necessary;
2. the organisation of the fire-fighting unit;
3. how fires are reported and how the alarm is set off;
4. arrangements for dealing with fires and explosions;
5. information on breathing apparatus for individuals responsible for fire-fighting.
6. If the fire-fighting plan relates to a land-based mine working as referred to in Article 3.6, paragraph one, item a, the ground plan referred to in paragraph one, item a, must also indicate the location of a fire station, and the plan must indicate the number and type of large mobile fire extinguishers held at this fire station.

Annex VI. relating to Article 3.9, items f and i

The investigations referred to in Article 3.9, items f and i, relating to the land-based mine working referred to in Article 3.6, paragraph one, item a, or any permanent mine installation referred to in Article 3.6, paragraph one, item b, shall cover the following aspects:

A. With regard to the pre-design report:

I. identification and evaluation of hazards and related risks of the various design options under consideration;

II. once a design has been selected:

- determining management measures to rule out or minimise risks;
- evaluating systems aimed at minimising risks;
- determining what management systems are needed, and
- evaluating provisional calculations of overpressure resulting from explosions.

B. With regard to the detailed design, start-up and use:

- assessing the applicability of, and where necessary revising, the pre-design report;
- determining the nature, likelihood, consequences, frequency and combinations of hazards and associated risks;
- demonstrating that the quantity of hydrocarbons stored is as small as possible;
- evaluating definitive calculations of overpressure resulting from explosions;
- demonstrating the effectiveness of the systems installed;
- demonstrating that the risk of fire, heat radiation, explosion and the release of toxic gases or vapours is minimised;
- demonstrating that the safety systems are sufficiently protective;
- demonstrating that the general prevention principles have been taken into account in the design;
- demonstrating that the likelihood of smoke or gas penetrating accommodation areas is minimised;
- demonstrating that the air in the accommodation areas is guaranteed to be of adequate respiratory quality;
- demonstrating that evacuation, escape and rescue systems are suitable;
- evaluating whether procedures and management measures during the construction activities are appropriate and fit for purpose;
- evaluating existing works supervision systems;
- evaluating procedures for commissioning the drilling working or permanent mine installation.

C. With regard to the addendum on use:

- assessing the applicability of, and where necessary revising, the detailed design, start-up and use;
- ascertaining whether all recommendations arising from examinations, inspections, or investigations into incidents, accidents and complaints have been implemented; and
- ascertaining whether all changes, findings, conclusions and recommendations arising from the various examinations and inspections have been recorded in writing.

D. With regard to the addendum on major alterations:

- assessing the applicability of and, where necessary, revising the addendum on use;
- determining the nature, likelihood, consequences, frequency and combinations of hazards and associated risks;
- performing a risk analysis of the proposed major alterations;
- evaluating whether procedures and management measures during the construction activities are appropriate and fit for purpose; and
- demonstrating that all management systems are appropriate and fit for purpose.

E. With regard to the addendum on closure and removal:

- determining the nature, likelihood, consequences, frequency and combinations of hazards and associated risks;
- performing a risk analysis of the removal methods and techniques;
- demonstrating that all management systems are appropriate and fit for purpose; and
- demonstrating that the quantity of hydrocarbons, toxic substances and chemicals is minimised.

Annex VII. relating to Article 3.9, items f and i

The investigations referred to in Article 3.9, items f and i, on any mine installation that can be transported in its entirety as referred to in Article 3.6, paragraph one, item c, and any other transportable installation used to drill mineshafts or to carry out activities in or on an existing mineshaft as referred to in Article 3.6, paragraph one, item d, shall cover the following aspects:

A. With regard to the detailed design, start-up and use:

- determining the nature, likelihood, consequences, frequency and combinations of hazards and associated risks;
- demonstrating that the quantity of hydrocarbons stored is as small as possible;
- demonstrating the effectiveness of the systems installed;
- demonstrating that the risk of fire, heat radiation, explosion and the release of poisonous gases or vapours is minimised;
- evaluating definitive calculations of overpressure resulting from explosions;
- demonstrating that the safety systems are sufficiently protective;
- demonstrating that the general prevention principles have been taken into account in the design;
- demonstrating that the likelihood of smoke or gas penetrating accommodation areas is minimised;
- demonstrating that the air in the accommodation areas is guaranteed to be of adequate respiratory quality;
- demonstrating that evacuation, escape and rescue systems are suitable;
- evaluating existing works supervision systems;
- evaluating the procedures for commissioning and removing mine installations that can be transported in their entirety as referred to in Article 3.6, paragraph one, item c, or other transportable installations used to drill mineshafts or to carry out activities in or on an existing mineshaft as referred to in Article 3.6, paragraph one, item d;

B. With regard to the addendum on use:

- assessing the applicability of and, where necessary, revising the detailed design, start-up and use;
- ascertaining whether all recommendations arising from examinations, inspections, or investigations into incidents, accidents and complaints have been implemented; and
- ascertaining whether all changes, findings, conclusions and recommendations arising from the various examinations and inspections have been recorded in writing.

C. With regard to the addendum on major alterations:

- assessing the applicability of and, where necessary, revising the addendum on use;
- determining the nature, likelihood, consequences, frequency and combinations of hazards and associated risks;
- performing a risk analysis of the proposed major alterations;

- evaluating whether the procedure and management measures during the construction activities are appropriate and fit for purpose; and

- demonstrating that all management systems are appropriate and fit for purpose.

Annex VIII. relating to Article 3.14

The information relating to the emergency plan referred to in Article 3.14 relates to:

- a. a description of the employer's organisational structure, individuals who are to be responsible in the event of an emergency, and a summary of their duties and powers;
- b. a description of the organisation of the individuals charged with using and keeping in practice with the use of evacuation, escape and rescue equipment, and of the individuals charged with specific tasks during the evacuation and rescue of individuals in a mine installation;
- c. how the alarm is to be raised;
- d. arrangements for assistance;
- e. the number, type and model of evacuation, escape and rescue equipment, together with individual rescue equipment in use at the mine installation;
- f. the criteria for the capacity of assistance vessels and helicopters, including their response time;
- g. the number of individuals experienced in the use of the equipment referred to in items e and f of this annex;
- h. a diagram showing the evacuation, escape and rescue equipment at the mine installation;
- i. the nature and frequency of the exercises to be carried out;
- j. the measures to be taken to ensure the safety and health of individuals charged with rescue work, especially with regard to rescue work performed in an atmosphere containing suffocating or poisonous gases or with regard to the hazards associated with performing rescue work in an atmosphere contaminated with radioactive substances.

Annex IX. relating to Article 4.1, item t

Safety and health declaration 10

Condition of the loading zone

- The entire loading zone is not safe for people and not safe in terms of fire.
- The cargo tanks are closed.

Mooring

Not at the wharf or repair yard.

No fire may be present or reasonably be expected within 25 metres of the loading zone.

Permitted activities

1. Cold working outside or above the loading zone and in K3 areas outside the loading zone.
2. Working with fire at least 25 metres outside the loading zone, but not in K3 areas.

Safety and health declaration 11

Condition of the loading zone

- The entire loading zone is not safe for people and not safe in terms of fire.
- The cargo tanks are closed and sealed.

Mooring

The vessel may go to the wharf or repair yard, but only to a safe mooring (= a mooring where no fire is present or may reasonably be expected within 25 metres of the loading zone).

No fire may be present or reasonably expected within 25 metres of the loading zone.

Permitted activities

1. Cold working outside or above the loading zone and in K3 areas outside the loading zone.
2. Working with fire at least 25 metres outside the loading zone, but not in K3 areas.

Safety and health declaration 12/1

Condition of the loading zone

- Part of the areas within the loading zone is not safe for people and not safe in terms of fire.

- Part of the areas within the loading zone is safe for people and not safe in terms of fire.
- Part of the areas within the loading zone is thought to be safe for people and safe in terms of fire.

In the latter case, the Safety and health declaration 12/1 is a precursor to the Safety and health declaration 12/2.

This Safety and health declaration 12/2 may only be issued once at least six hours have passed since the Safety and health declaration 12/1 was issued. There may not be any changes to the condition of the entire loading zone during this time.

Mooring

The vessel may go to the wharf or repair yard.

No fire may be present or reasonably be expected within 25 metres of the loading zone.

Permitted activities

1. Cold working outside or above the loading zone and in K3 areas outside the loading zone.
2. Cold working in part of the loading zone. Specific activities may be carried out depending on the condition of the loading zone; a decision as to what activities are permitted will be taken in the light of that condition.
3. Working with fire at least 25 metres outside the loading zone, but not in K3 areas.

Safety and health declaration 12/2

Condition of the loading zone

- Part of the areas within the loading zone is not safe for people and not safe in terms of fire.
- Part of the areas within the loading zone is safe for people and not safe in terms of fire.
- Part of the loading zone is safe for people and safe in terms of fire.

The Safety and health declaration 12/2 can only be issued if it is apparent that the areas in which working with fire has to be carried out have remained safe for people and safe in terms of fire, and no changes have occurred to the condition of the other areas within the loading zone.

In addition, at least six hours must have passed since the corresponding Safety and health declaration 12/1 was issued.

Mooring

The vessel may go to the wharf or repair yard.

No fire may be present or reasonably be expected within 25 metres of the loading zone.

Permitted activities

1. Cold working above or outside the loading zone and in K3 areas outside the loading zone.
2. Cold working in part of the loading zone. Specific activities may be carried out depending on the condition of the loading zone; a decision as to what activities are permitted will be taken in the light of that condition.
3. Working with fire in part of the loading zone. Specific activities may be carried out depending on the condition of the loading zone; a decision as to what activities are permitted will be taken in the light of that condition.
4. Working with fire at least 25 metres outside the loading zone, but not in K3 areas.

Safety and health declaration 13/1

Condition of the loading zone

- The entire loading zone is safe for people and not safe in terms of fire.

As the Safety and health declaration 13/1 is the precursor to the Safety and health declaration 13/2, steps must be taken to make the entire loading zone safe in terms of fire. The Safety and health declaration 13/2 may only be issued once at least six hours have passed since the Safety and health declaration 13/1 was issued. There may not be any changes to the condition of the entire loading zone during this time.

Mooring

The vessel may go to the wharf or repair yard. No fire may be present or reasonably be expected within 25 metres of the loading zone.

Permitted activities

1. Cold working outside or above the loading zone and in K3 areas outside the loading zone.
2. Cold working in the entire loading zone.
3. Working with fire at least 25 metres outside the loading zone, but not in K3 areas.

Safety and health declaration 13/2

Condition of the loading zone

- The entire loading zone is safe for people and safe in terms of fire.

This condition, once established, has remained unchanged since the corresponding Safety and health declaration 13/1 was issued. Furthermore, at least six hours must have passed since the corresponding Safety and health declaration 13/1 was issued.

Mooring

The vessel may moor anywhere.

Permitted activities

1. Cold working outside or above the loading zone and in K3 areas outside the loading zone.
2. Cold working in the entire loading zone.
3. Working with fire in, above and outside the entire loading zone, but not in K3 areas outside the loading zone.

Safety and health declaration 20

Condition of the loading zone

The loading zone is completely or partly safe for people and safe in terms of fire.

Mooring

The vessel may moor anywhere.

Permitted activities

1. Cold working outside or above the loading zone and in K3 areas outside the loading zone.
2. Cold working in all or part of the loading zone. Specific activities may be carried out depending on the condition of the loading zone; a decision as to what activities are permitted will be taken in the light of that condition.
3. Working with fire in enclosed areas outside the loading zone, but not in K3 areas outside the loading zone.
4. Working with fire above and outside the entire loading zone.
5. Working with fire in all or part of the loading zone. Specific activities may be carried out depending on the condition of the loading zone; a decision as to what activities are permitted will be taken in the light of that condition.

Safety and health declaration 31

Condition of the loading zone

- The entire loading zone is safe for people and not safe in terms of fire.

Mooring

The vessel may moor anywhere.

Permitted activities

1. Cold working outside or above the loading zone and in K3 areas outside the loading zone.
2. Cold working in the entire loading zone.
3. Working with fire outside or above the loading zone, but not in K3 areas outside the loading zone.

Safety and health declaration 32

Condition of the loading zone

- Part of the loading zone is safe for people and not safe in terms of fire.
- The rest of the loading zone is safe for people and safe in terms of fire.

Mooring

The vessel may moor anywhere.

Permitted activities

1. Cold working outside or above the loading zone and in K3 areas outside the loading zone.
2. Cold working in the entire loading zone.
3. Working with fire outside or above the loading zone, but not in K3 areas outside the loading zone.
4. Working with fire in part of the loading zone. Specific activities may be carried out depending on the condition of the loading zone; a decision as to what activities are permitted will be taken in the light of that condition.

Safety and health declaration 33

Condition of the loading zone

- The entire loading zone is safe for people and safe in terms of fire.

Mooring

The vessel may moor anywhere.

Permitted activities

1. Cold working outside or above the loading zone and in K3 areas outside the loading zone.
2. Cold working in the entire loading zone.
3. Working with fire in, above or outside the loading zone, but not in K3 areas outside the loading zone.

Safety and health declaration A/30

Condition of the loading zone

- The K3 areas outside the loading zone are safe in terms of fire.

The condition of areas inside the loading zone is not recorded on this Safety and health declaration.

Permitted activities

1. Cold working in K3 areas outside the loading zone.
2. Working with fire in K3 areas outside the loading zone.

The A/30 Safety and health declaration is a "Combination Safety and health declaration". This means that a Safety and health declaration A/30 may never be issued in isolation. It must always be issued in combination with a Safety and health declaration which indicates the condition of the loading zone.

Safety and health declaration A4

The purpose of this Safety and health declaration is to restore the validity of a Safety and health declaration which has become invalid.

Condition of the loading zone

The condition of the loading zone is identical to the condition as indicated on the Safety and health declaration that has become valid once again following the issue of the Safety and health declaration A4.

The models referred to in this annex may be inspected at the library of the Ministry of Social Affairs and Employment.

Annex X relating to Articles 4.11, 4.12 and 4.13

Model A is the model report form to be used in the context of Articles 4.11 and 4.13.

This model relates to repairs to, on or in tankships involving working with fire above the loading zone and/or working with fire in part of the loading zone without the corresponding necessary safety and health declaration having been issued.

Model B is the model report form to be used in the context of Articles 4.12 and 4.13.

This model relates to deviations from the requirement laid down in the Safety and health declarations 10, 11, 12/1, 12/2 and 13/1 that no fire may be present or reasonably be expected within 25 metres of the loading zone.

Repairs to or on tankships involving working with fire outside the loading zone but within 25 metres of that loading zone are carried out without the corresponding necessary safety and health declaration having been issued.

The models referred to in this annex may be inspected at the library of the Ministry of Social Affairs and Employment.

Annex XI. relating to Article 4.17d

Data to be included in the commercial fireworks work schedule referred to in Article 4.9, paragraph one, of the Working Conditions Decree

1. Activities

A. General issues

- a. the location (address), date(s) and time(s) at which or between which commercial fireworks are to be set off;
- b. a description of the location (layout and structure) where the fireworks are to be set off, indicating where particular types of commercial fireworks are to be set off;
- c. how the fireworks are to be positioned and the base on which they are to be positioned;
- d. the site at the location referred to under a where the commercial fireworks are to be set up, put together or assembled;
- e. the site at the location referred to under a where commercial fireworks are to be held in temporary storage prior to the activities referred to under d and to setting them off;
- f. the name of the individual holding a certificate of competence in the handling of commercial fireworks as referred to in Article 4.9 of the Working Conditions Decree, referring to the type of work that he or she carries out, and in whose presence and under whose constant supervision the commercial fireworks will be held in temporary storage, set up, installed, put together, assembled, set off, and removed after combustion;
- g. the names, duties and qualifications of the individuals referred to in Article 3.3.6, paragraph one, under b, of the Fireworks Decree who are responsible, under the supervision of the individual referred to under f, for the temporary storage, setting up, installation, putting together, assembly, setting off and removal of the commercial fireworks after combustion.

B. Specific issues

Fireworks displays

- a. a list of the types of fireworks displays that are to be set off, indicating the number of each type and the normal safety distance for each type;
- b. the order in which the fireworks displays are to be set off, how this is to be done, and where electrical equipment is to be used, the details of the equipment;
- c. the time needed to hold the fireworks in temporary storage and set up the show up to the point of setting off the fireworks and the time needed to dismantle the show once ignition has taken place;

Pyrotechnic special effects

a list of the types of pyrotechnic special effects that are to be set off, indicating the quantities and the normal safety distances from spectators and combustible objects for each type;

2. Risks

- a. a systematic description of the risks of the activities, including an estimate of the likelihood of possible accidents caused as a result of the activities by waste material and fireworks that do not go off properly. Also, a systematic description of the effects of possible accidents;
- b. the description of risks for fireworks displays shall take account of the effect of weather conditions;

3. Measures

A. General issues

- a. the points attended by the fire services, police, first-aid services or other agencies;
- b. the fire protection and fire extinguishing resources available and the points where these resources are kept;
- c. the measures relating to the risks referred to under 2 aimed at reducing the likelihood of an accident to the individuals responsible for carrying out or supervising the setting up, installation, putting together, assembly, setting off of the fireworks and removing them after combustion;
- d. the protective devices relating to the risks referred to under 2 provided for the individuals responsible for carrying out or supervising the setting up, installation, putting together, assembly, setting off of the fireworks and removing them after combustion.

B. Specific issues

Fireworks displays

- a. a map showing the areas where fireworks used in displays or residues thereof may fall, the lines behind which spectators must remain, and the escape routes available for spectators and the individuals referred to under 1A, under f and g;
- b. marking and enclosing the area within the safety distances described measured from the place where the fireworks display is to be set off;
- c. how the area within the lines referred to under 4b is to be monitored and demarcated; d. a specific description of the weather conditions under which the show (or parts thereof) will not take place;

4. Signature

The work schedule is to be signed by an individual holding a certificate of competence in the handling of commercial fireworks as referred to in Article 4.9 of the Working Conditions Decree, specifying the type of work carried out.

Annex XII

[Currently under review at the Ministry of Social Affairs and Employment in The Hague.]

Annex XIII. relating to Article 4.19, paragraph one

List of limit values based on Articles 4.3, paragraph one, and 4.16, paragraph one, of the Working Conditions Decree

Explanation of letters and references used

CAS number

To ensure clear identification, each substance is listed along with its CAS number (the number under which the substance is registered with the Chemical Abstract Service).

TWA

Time-weighted average. For a number of substances, both the maximum acceptable concentration for an exposure period of up to eight hours a day and another limit value relating to short-term exposure of no more than 15 minutes have been determined.

C

Ceiling value

This is indicated for substances where the limit value is a ceiling value. Where this value is specified, the concentration in question must never be exceeded.

S (Skin absorption)

This value is stated for substances that can be relatively easily absorbed through the skin, and where this form of absorption can make a significant contribution to total internal exposure. Adequate measures to prevent skin contact must be taken for these substances in addition to measures to prevent inhalation.

Breathable/inhalable substance

In the case of substances that can also take the form of particles/aerosols, the limit value relates to particles sampled as 'inhalable substance' unless otherwise specified. For further definitions of inhalable and breathable substances and how they should be measured, see NEN standard NEN-EN 481:1994, 'Workplace atmosphere. Definition of particle size distribution for the measurement of airborne particles'.

Breathable fibres

Breathable fibres are defined as follows: fibres greater than 5 micrometres in length with a diameter of less than 3 micrometres and a length to width ratio of more than 3 to 1. Mineral wool fibres must also be less than 200 micrometres in length to fall under this definition.

The limit values given below apply at a temperature of 20 °C and a pressure of 101.3 kPa.

A. List of statutory limit values

ISO name of the substance	CAS number	TWA 8 hours mg/m ³	C	TWA 15 minutes mg/m ³	S
Acetaldehyde	75-07-0	37		92	
Acetone	67-64-1	1210		2420	
Acetonitrile	75-05-8	34			
Allyl alcohol	107-18-6	4.8		12.1	S
2-aminoethanol	141-43-5	2.5		7.6	S

ISO name of the substance	CAS number	TWA 8 hours mg/m ³	C	TWA 15 minutes mg/m ³	S
Ammonia	7664-41-7	14		36	
Antimony and antimony compounds (as Sb)	7440-36-0	0.5			
Barium, soluble compounds (as Ba)	7440-39-3	0.5			
Bromide	7726-95-6			0.2	
Hydrogen bromide	10035-10-6			6.7	
2-butanone	78-93-3	590		900	S
2-butoxyethanol	111-76-2	100		246	S
2-(2-butoxyethoxy)ethanol	112-34-5	50		100	S
2-butoxyethyl acetate	112-07-2	135		333	S
n-butylacrylate	141-32-2	11		53	
tert-butyl chromate (as CrO ₃)	1189-85-1	0.1	C		S
Carbonyl fluoride and PTFE-pyrolysis products, as F	353-50-4			1	
Chlorine	7782-50-5			1.5	
Chlorobenzene	108-90-7	23		70	
Chlorodifluoromethane	75-45-6	3600			
Chloroethane	75-00-3	268			
Chloroform	67-66-3	5		25	
Chromium (metallic)	7440-47-3	0.5			
anorganic chromium (II) compounds and anorganic chromium (III) compounds (insoluble)		0.5		1	
Chromium (III) compounds (as Cr), water-soluble		0.06			
Cumene	98-82-8	100		250	S
Cyanamide	420-04-2	0.2			S
Cyanides, including hydrogen cyanogen (as CN)	74-90-8	1		10	S
Cyclohexane	110-82-7	700		1400	
Cyclohexanone	108-94-1			50	S
Dichloroacetylene	7572-29-4	0.4	C		
1,2-dichlorobenzene	95-50-1	122		300	S
1,4-dichlorobenzene	106-46-7	150		300	
1,1-dichloroethane	75-34-3	400		800	
Diethylamine	109-89-7	15		30	
Diethyl ether	60-29-7	308		616	
Diphosphorpenntaoxide	1314-56-3	1		5	
Diphosphorpenntasulphide	1314-80-3	1			
N,N,-dimethylacetamide	127-19-5	36		72	S
Dimethylamine	124-40-3	1.8			

ISO name of the substance	CAS number	TWA 8 hours mg/m ³	C	TWA 15 minutes mg/m ³	S
Dimethyl ether	115-10-6	950		1500	
Dipropylene glycol methyl ether	34590-94-8	300			
Ethane-1,2-diol- vapour - droplets	107-21-1	5210		104	S
Ethylamine	75-04-7	9			
Ethyl benzene	100-41-4	215		430	S
Phenol	108-95-2	8			S
2-phenylpropene	98-83-9	20			
Fluorine	7782-41-4			0.5	
Fluorides, anorganic and soluble (as F)				2	
Hydrogen fluoride (as F)	7664-39-3			1	
Formaldehyde	50-00-0	0.15		0.5	
Phosphine	7803-51-2	0.14		0.28	
Phosphorpentachloride	10026-13-8	1			
Phosphoric acid	7664-38-2	1		2	
Phosgene	75-44-5	0.08		0.4	
n-heptane	142-82-5	1200		1600	
2-heptanone	110-43-0	233			
3-heptanone	106-35-4	163			
n-hexane	110-54-3	72		144	
1,6-hexanolactame- vapour- dust	105-60-2	201			
Isopentane	78-78-4	1800			
Cobalt (dust and fumes) (as Co)	7440-48-4	0.02			
Cobalthydrocarbonyl (as Co)	16842-03-8	0.1			
Carbon dioxide	124-38-9	9000			
Carbon monoxide	630-08-0	29			
Copper and anorganic copper compounds (inhalable)	7440-50-8	0.1			
Welding fumes ¹		1			
Lithium hydride	7580-67-8	0.025			
Lead, see Article 4.19a of the Working Conditions Regulation					
Mesitylene (trimethylbenzenes)		100		200	
Methanol	67-56-1	260		520	S
2-(methoxyethoxy)ethanol	111-77-3	45			S
1-methoxy-2-propanol	107-98-2	375		563	S
1-methoxy-2-propylacetate	108-65-6	550			

¹ Until 1 April 2010 the statutory limit value is 3,5 mg/m³.

ISO name of the substance	CAS number	TWA 8 hours mg/m ³	C	TWA 15 minutes mg/m ³	S
1-methylbutylacetate	620-11-1			530	
2-methylbutylacetate	625-16-1			530	
5-methylheptane-3-on	541-85-5	133			
5-methylhexane-2-on	110-12-3	233			
4-methyl-2-pentanone	108-10-1	104		208	
Formic acid	64-18-6			5	
Morpholine	110-91-8	36		72	S
Naphthalene	91-20-3	50		80	
Sodium azide	26628-22-8	0.1		0.3	S
Neopentane	463-82-1	1800			
Nicotine	54-11-5	0.5			S
Nitrobenzene	98-95-3	1			S
Oil mist (mineral oil)		5			
Oxalic acid	144-62-7	1			
Ozone	10028-15-6	0.12 (TWA 1 hour)			
n-pentane	109-66-0	1800			
n-pentylacetate	628-63-7			530	
iso-pentylacetate	123-92-2			530	
tert-pentylacetate	625-16-1			530	
Perfluoroisobutylene	382-21-8	0.082	C		
Piperazine	110-85-0	0.1		0.3	
Platinum, metallic	7440-06-4	1			
Propionic acid	79-09-4	31		62	
Pyrethrum	8003-34-7	1			
Pyridine	110-86-1	0.9			
Resorcinol	108-46-3	10			
Nitric acid	7697-37-2			1.3	
Selenium hexafluoride (as Se)	7783-79-1	0.2			
Hydrogen selenium (as Se)	7783-07-5	0.1			
Stibine	7803-52-3	0.5			
Nitrogen dioxide	10102-44-0	0.4		1	
Nitrogen monoxide	10102-43-9	0.25			
Talc (breathable)	14807-96-6	0.25			
Tetraethyldithiopyrophosphate	3689-24-5	0.1			S
Tetrahydrofurane	109-99-9	300		600	S
Toluene	108-88-3	150		384	

ISO name of the substance	CAS number	TWA 8 hours mg/m ³	C	TWA 15 minutes mg/m ³	S
1,2,4-trichlorobenzene	120-82-1	7.55		37.8	S
1,1,1-trichloroethane	71-55-6	555		1110	
Triethylamine	121-44-8	4.2		12.6	S
1,2,3-trimethylbenzene	526-73-8	100		200	
1,2,0,4-trimethylbenzene	95-63-6	100		200	
Vanadium oxides (as V)		0.01		0.03	
Xylene, o-, m-, p-isomers	1330-20-7	210		442	
Silver, metallic	7440-22-4	0.1			S
Silver, soluble compounds (as Ag)		0.01			
Hydrochloric acid	7647-01-0	8		15	
Sulphure dioxide	7446-09-5			0.7	
Hydrogen sulphide	7783-06-4	2.3			

B. List of statutory limit values for carcinogenic substances

ISO name of the substance	CAS number	TWA 8 hours mg/m ³	TWA 15 minutes mg/m ³	S
Acrylamide	79-06-1	0.16		S
Aflatoxins		0,005 ²		
Arsenic pentoxide (as As)	1303-28-2	0.025	0.05	
Arsenic trioxide (as As)	1327-53-3	0.025	0.05	
Arsenic acid (as As)	7778-39-4	0.025	0.05	
water-soluble salts of arsenic acid (as As)		0.025	0.05	
non-water-soluble salts of arsenic acid (as As)		0.05	0.1	
Asbestos, see Article 4.46 of the Working Conditions Decree				
Azathioprine	446-86-6	0.005		
Aziridine	151-56-4	0.0009		
Barium chromate (as Cr)	10294-40-3		0.025	
Benzene ³	71-43-2	3.25		S
Petrol		240	480	
1,3-butadiene	106-99-0	46.2		
Cadmium chloride (as Cd)	10108-64-2	0.005		
Cadmium oxide (fume) (as Cd)	1306-19-0	0.005		
Cadmium sulphate (as Cd)	10124-36-4	0.005		
Calcium chromate (as Cr)	13765-19-0		0.01	

² µg/m³

³ As fuel for combustion engines. This mixture is classified as carcinogenic if the benzene content is greater than 0.1%.

ISO name of the substance	CAS number	TWA 8 hours mg/m ³	TWA 15 minutes mg/m ³	S
Carbadox	6804-07-5	0.003		
4-chloro-o-phenylenediamine	95-83-0	0.2		
Chromium (III) chromate (as Cr)	24613-89-6		0.01	
Chromium(VI)-soluble compounds		0.025	0.05	S
Chromium trioxide (as Cr)	1333-82-0	0.025	0.05	
Cisplatin	15663-27-1	0.00005		
Dacarbazine	4342-03-4	0.0009		
1,2-dibromoethane	106-93-4	0.002		
1,2-dichloroethane	107-06-2	7		
2,2'-dichloro-4,4'-methylenedianiline	101-14-4	0.02		S
Epichlorohydrin	106-89-8	1.9		
1,2-epoxypropane	75-56-9	6		
Ethylene oxide	75-21-8	0.84		
Hardwood dust ⁴		2		
Hexachlorobenzene	118-74-1	0.03		
Ceramic fibres ⁵		0.5		
Lead chromate (as Cr)	7758-97-6		0.025	
2-methylaziridine	75-55-8	0.6 ⁶		
4,4'-methylenedianiline	101-77-9	0.2		S
Metronidazole	443-48-1	0.0006 ⁷		
2-nitropropane	79-46-9	0.036		
N-nitrosodimethylamine	62-75-9	0.0002		
Procarbazine hydrochloride	366-70-1	0.002		
Silicium(di)oxide:				
- quartz	14808-60-7	0.075 ⁸		
- cristoballite	14464-46-1	0.075 ⁹		
- tridymite	15468-32-3	0.075 ¹⁰		
Strontium chromate (as Cr)	7789-06-2		0.01	
1,2,3-trichloropropane	96-18-4	0.108		S
Urethane	51-79-6	0.002		

⁴ Hardwood according to the definition of the International Agency for Research on Cancer (IARC) of wood on the basis of the botanic property: wood of angiosperms = hardwood.

⁵ Breathable fibres per cm³ of air, TWA 8 hours.

⁶ µg/m³

⁷ As of 1 March 2008 the limit value is 0.00012 mg/m³

⁸ For breathable substance. The statutory limit value for the building industry is 0,15 mg/m³.

⁹ For breathable substance

¹⁰ For breathable substance

ISO name of the substance	CAS number	TWA 8 hours mg/m ³	TWA 15 minutes mg/m ³	S
Vinyl bromide	593-60-2	0.012		
Vinyl chloride monomer	75-01-4	7.77		
Zinc chromate (as Cr)	13530-65-9		0.01	

Annex XIV. relating to Article 4.32a, paragraph three, item a

- to be inserted: picture 'decision tree'

List of explanatory terms in decision tree

Attack situation in the use phase	Attacks that cause a significant increase in corrosion and/or impose stricter requirements on the performance of the paintwork following application
Protective measure	Measures aimed at protecting health
Particularly attack-prone circumstances	Situations in the use phase that simultaneously cause an increased risk of corrosion as a result, for example of simultaneous mechanical and chemical attack
C1-C5	Corrosion rates linked to attacks with examples: C1 Heated buildings with a clean atmosphere, e.g. offices, shops, schools, hotels, houses and flats. C2 Unheated buildings where condensation can occur, e.g. warehouses, sports halls. C3 Manufacturing premises with high humidity and some air pollution, e.g. food-processing plants, laundries, breweries, dairy industry C4 Manufacturing premises or buildings exposed to permanent attack or high condensation, e.g. chemical plants, swimming pools C5 Buildings with almost permanent condensation or high levels of pollution
Dew item	The temperature below which the moisture in the air will condense on surfaces
Derivatives	Products derived from mineral oils or combinations of products in which mineral oils are present
Dry room	A room in which the relationship between air humidity and temperature is such that the atmosphere can be regarded as acceptable for habitation, where people can be allowed to remain for extended periods
Some air pollution	Pollution which is occasionally or permanently characterised by chemical contamination which can affect the quality of the protective paintwork
Severe air pollution	Pollution which is present almost all the time and which, given the chemicals involved, affects the paintwork and directly damages (corrodes) a metal base.
NEN 12944 (NPR 7452)	Standard dealing with the use of paintwork to protect metal. In this standard, the references C1 to C5 described corrosion attack categories. Replacement and management measures are now also attached to this classification system.
Immersion for more than 5 minutes in any 24 hours	Direct exposure to a liquid lasting longer than 5 minutes. Direct deformation of the protective paintwork is caused by the composition of this liquid or by this liquid's ability to penetrate the paintwork and then cause corrosion of the underlying metal base.
Clean atmosphere	An atmosphere characterised by very little or no contamination and that is regarded as a normal situation under normal living conditions.
VOS	Volatile organic substance. Under the Working Conditions Decree, Article 4.62a, this is defined as: organic compounds and mixtures thereof that at 293,15 K (20°C) have a vapour pressure of at least 0.01 kPa or that are of comparable volatility under their specific conditions of use. Exposure to VOS can be harmful to health. VOS must be replaced wherever possible. Where replacement is impossible, protective measures must be adopted.

Annex XV. relating to Article 4.32f, paragraph two, under a, and paragraph four

Maximum permitted quantity of volatile organic substances (VOS) in products used to repair paint damage or renew paint layers on parts of motorised vehicles

Groups	VOS ¹¹ in ready-to-use/ready-to-spray mixture
Spray cleaners	850 gr/litre
Surface cleaners	200 gr/litre
Wash primers	780 gr/litre
Primer surfacer, single- or double-component	540 gr/litre
Sealer	540 gr/litre
Single-layer paintwork and chassis coating	420 gr/litre
Double-layer paintwork comprising: base colour paint and clear paint	420 gr/litre ¹²
Special products ¹³	840 gr/litre
Other products ¹⁴	150 gr/litre

¹¹ The VOS content was determined according to the ASTM – D 3960-96 method for ready-to-use mixtures.

¹² The average is determined by applying the VOS content per coat in the formula $(a \cdot L1 + b \cdot L2) / (a + b)$

This average is equal to or less than 420 grams per litre of ready-to-spray product. L1 is the VOS content of the base coat of paint and L2 is the VOS content of the white paint, with a and b referring to the amount of L1 and L2 respectively made up in grams. The quantities relate to ready-to-spray products and none of the coats may contain more than 480 grams per litre of VOS.

¹³ Special products are intended for special treatments (such as motorcycle colours and special design colours using inks that cannot be produced using a normal base coat) and special applications (such as surfaces with poor adhesion properties). This group of products also includes additives that are added to existing products in order to produce special effects such as roughness, matte finish, etc. This means that products to which these specific additives are added may exceed the maximum VOS/litre content. Special cleaning agents (silicones, paint-removal products) are added because they do not fall under the listed spray cleaners and surface cleaners.

The group of special products includes plasticisers, hardeners, activators, retardants, matting agents, structural agents, products achieving particular effects, anti-silicones, base paint and ink used to produce special colours (design), matte paint, adhesive primers for special plastic or metal surfaces (where a normal (wash) primer cannot be used), spray nozzles, spray thinners, plastic cleaners, silicon removers and paint removers.

¹⁴ 4 Other products are: polishing and cleaning agents, fillers, sealants, adhesives and fillers.

Annex XVI. relating to Articles 6.5, paragraph two, and 6.6

A. Final attainment levels diving work certificates, diving medical officer certificates, dive team leader certificates and diving doctor certificates:

The following training objectives shall always be individually specified and referenced in respect of the dive training for the category of diving work for which the trainee is being trained:

Category A diving work as referred to in Article 6.5, paragraph two, item b, under 1° (SCUBA):

- elementary science, physiology, and knowledge of diving diseases and the corresponding first-aid procedures;
- the operation, maintenance and use of various types of SCUBA apparatus according to the following schedule:
 - for depths of up to 20 metres: at least 700 minutes time in the water, of which at least 300 minutes must be spent at a depth between 10 and 20 metres, and
 - at depths of 20 metres or more: at least 200 minutes time in the water, with at least one dive to a depth of more than 28 metres;
- decompression methods;
- theory of underwater techniques and underwater safety;
- particular hazards under water and safety procedures;
- seamanship, comprising: nautical theory and elementary meteorology;
- underwater communication and underwater navigation;
- ropework and rigging;
- inspection and reports;
- searching and working methods;
- use of the lifting balloon;
- relevant legislation and regulations.

Category B diving work as referred to in Article 6.5, paragraph two, item b, under 2° (SSE):

- The skills referred to in category A, plus, with regard to the use of breathing gas, relevant theoretical knowledge and knowledge of the operation, maintenance and use of various types of diving equipment with a surface breathing gas supply (SSE), resulting in at least the following diving times for categories A and B combined:
 - for depths of up to 20 metres: at least 1600 minutes time in the water, of which at least 400 minutes must be spent at a depth between 10 and 20 metres,
 - for depths between 20 and 40 metres: at least 250 minutes time in the water, of which at least 100 minutes must be spent at a depth between 30 and 40 metres, and at least eight dives with at least 10 minutes spent on the bottom per dive, and
 - at depths between 40 and 50 metres: at least 150 minutes, including at least three open-water dives and with a total time spent on the bottom of at least 75 minutes;
- decompression methods, including the operation and use of the decompression tank; - a more in-depth knowledge of ropework and rigging;
- using the video camera;
- theory and practice of mechanical, hydraulic and electrical underwater equipment;
- diving from the wet diving bell, acting as diver and bellman, with the relevant emergency procedures;
- theory of dynamic positioning systems;
- theory and practice of the hot-water pack;
- relevant regulations.

Category C diving work as referred to in Article 6.5, paragraph two, item b, under 3° (dry diving bell):

The minimum pre-training requirement for individuals wishing to undergo training in this category of diving work is that they must have held a category B diving certificate for at least one year and must have performed at least 50 hours diving work in this category.

The following training objectives shall also be individually specified and referenced:

- science, physiology, and knowledge of diving diseases and the corresponding first-aid procedures for mixed gas diving;
- decompression tank theory (gas systems, gas monitoring, fire-fighting, sanitary systems, communication and emergency procedures);
- working a decompression tank and performing all the related necessary procedures;
- working as a member of a surface team and a diving team in both bounce dives and saturation dives;
- when working as diver and bellman, carrying out lock-in and lock-out procedures and transport under pressure (TUP) according to the required programme;
- carrying out at least three bounce dives with the diving bell to 55, 75 and 100 metres respectively;
- completing at least one saturation dive;
- diving bell theory (gas systems, scrubbers, heating, communication and ballast);
- working a dry diving bell including performance of the necessary inspections and emergency procedures;
- theory of gas recovery systems and survival equipment;
- relevant regulations.

Category D diving work as referred to in article 6.5, paragraph two, item b, under 4° (diving work in aquariums, swimming baths or similar situations):

Divers in the category Diving work in aquariums, swimming baths or similar situations carry out light diving activities in the pools in the context of their maintenance, and observe and assist in the simulation of accidents, looking after animals, monitoring tests and maintaining artificial ecosystems. The following requirements apply:

- the maximum reachable depth of the pool is 9 metres;
- divers can see for at least 4 metres under water;
- divers can ascend at will at any time;
- the flow speed is less than 0.5 metres per second;
- diving is carried out using compressed air and no gas mixtures.

The following training objectives shall be individually specified and referenced in training for the category of diving work in aquariums, swimming baths or similar situations:

- elementary science, physiology, and knowledge of diving diseases and the corresponding first-aid procedures as required for Diver First Aid training;
- the operation and maintenance of, and diving with, various types of SCUBA equipment designed for dives up to a depth of 9 metres in aquariums, swimming baths and similar situations with at least 600 minutes time in the water;
- decompression guidelines;
- theory relating to underwater technique and safety;
- particular hazards under water and safety procedures relating to working with dangerous animals or helping people in the context of simulated accidents;
- line signals and visual signals
- seamanship: at least three knots;
- relevant working methods;
- relevant regulations.

B.

B. Final attainment levels in respect of the award of diving medical officer certificate relating to the type of work carried out:

The following training objectives shall always be individually specified and referenced in training for the category of diving medical officer for which the trainee is undergoing training:

With regard to the diving first-aid certificate referred to in Article 6.5, paragraph two, item c, under 1:

- first aid and cardiopulmonary resuscitation;
- specific medical risks associated with diving;
- scientific aspects;
- anatomy and physiology;
- pathology and diving diseases;
- diagnosis;
- use of the oxygen box;
- prevention;
- the minimum practical experience required.

Medical Aspects of Diving A (MAD-A) certificate referred to in Article 6.5, paragraph two, item c, under 2°:

- first aid and cardiopulmonary resuscitation;
- specific medical risks associated with diving;
- scientific aspects;
- anatomy and physiology;
- pathology and diving diseases;
- diagnosis;
- neurological tests;
- treatment (decompression diseases and pulmonary embolism);
- use of the oxygen box;
- prevention;
- the minimum practical experience required.

Individuals wishing to undergo training for this certificate must hold a first-aid certificate covering cardiopulmonary resuscitation.

Medical Aspects of Diving B (MAD-B) certificate referred to in Article 6.5, paragraph two, item c, under 3°:

- full physical examination;
- subcutaneous, intramuscular and intravenous injections;
- closing wounds;
- performing thorax punctures;
- fitting bladder catheters;
- attaching intravenous drips and performing infusions;
- artificial mechanical respiration;
- intubation;
- fitting gastric catheters;
- rectal gas removal;
- the minimum practical experience required.

Individuals wishing to undergo training for this certificate must hold a valid Medical Aspects of Diving A certificate

C. Final attainment levels in respect of the award of dive team leader certificates

The following training objectives shall always be individually specified and referenced in training for the category of dive team leader for which the trainee is undergoing training:

Dive team leader as referred to in article 6.5, paragraph two, item a, under 1°

1. Legislation

- Relevant working conditions regulations (including Chapters 3, Section 2, of the Supplementary Construction Site Requirements and 6, Section 5, Working under excess pressure, of the Working Conditions Decree);
- Relevant mining regulations
- Relevant European regulations (England [offshore], Germany [inland waterways]).

2. Science

- Gas theory (oxygen, nitrox);
- Gases in practice (measuring respiratory gas, oxygen level, gas analysis equipment);
- Product information sheets.

3. Diving medicine skills/knowledge

- First aid requirements (equipment and staff);
- Accident management.

4. Operational aspects

- Health and safety;
- Quality assurance;
- Documentation and records;
- Materials management;
- Execution, contract monitoring and organisation;

5. Leadership, including leadership in critical situations.

Pre-training requirements for individuals wishing to undergo training as dive team leaders

1. minimum age: 24;
2. divers' certificate specifying the type of work carried out or equivalent;
3. MAD-A certificate or equivalent;
4. minimum of two years' experience as breathing gas diver and at least 100 professional dives;
5. having completed or led at least 30 professional dives (or a combination of the two) in the two years preceding the course.

Dive team leader with the fire service, as referred to in article 6.5, paragraph two, item a, under 2°. The training objectives are the same as for dive team leader as referred to in article 6.5, paragraph two, item a, under 1°

Pre-training requirements for individuals wishing to undergo training for dive team leader qualification with the fire service

1. minimum age: 24;
2. holder of the national fire service diver's certificate;
3. having at least two year's experience as a fire service diver and having completed at least 20 practice dives with a total time under water of at least 600 minutes;
4. in the two years prior to training:
 - a. having completed at least 20 practice dives with a total time under water of at least 600 minutes, or
 - b. having led at least 20 professional dives, or
 - c. a combination of items a and b.

Dive team leader as referred to in article 6.5, paragraph two, item a, under 3° (diving work in aquariums, swimming baths or similar situations)

The following training objectives are individually specified and referenced:

1. Legislation
 - Relevant working conditions regulations (including Chapters 3, Section 2, of the Supplementary Construction Site Requirements and 6, Section 5, Working under excess pressure, of the Working Conditions Decree);
2. Diving medicine skills/knowledge
 - First aid requirements (equipment and staff);
 - Accident management.
3. Operational aspects
 - Health and safety;
 - Quality assurance;
 - Documentation and records;
 - Materials management;
4. Leadership, including leadership in critical situations.

Pre-training requirements for individuals wishing to undergo training for dive team leader qualification for diving work in aquariums, swimming baths or similar situations:

1. minimum age: 21;
2. holder of a diving work certificate relevant to the type of work to be undertaken or equivalent;
3. holder of diver first aid certificate or equivalent;
4. at least one year's experience of diving work in aquariums, swimming baths or similar situations and at least 30 professional dives.

D. Final attainment levels in respect of the award of diving doctor certificates relating to the type of work carried out:

These final attainment levels were set in accordance with the 'Training standards for Diving and Hyperbaric medicine' drawn up by the 'Joint Medical Subcommittee' of the 'European Diving Technology Committee' (EDTC).

1. Certificate categories:

I. diving doctor certificate A

II. diving doctor certificate B

re I. certificate required for the occupational health medical examination of individuals required to carry out diving work, caisson work, or other work under excess pressure, as described in Article 6.14a, paragraph two, of the Decree.

re II. certificate required for the occupational health medical examination of individuals required to carry out diving work, caisson work, or other work under excess pressure, as described in Article 6.14a, paragraph one, of the Decree and who must undergo the tests referred to in Article 6.14a, paragraph two, of the Decree.

2. Final attainment levels for each category

	I	II
1 Physiology and Pathology	*	*
Hyperbaric physics	B	C
- gas laws and their effects on the anatomy		
Diving medicine physiology	B	C
- functional anatomy		
- lung function		
- hearing and balance		
- heat regulation		
Hyperbaric pathophysiology	B	C
- dive reflex		
- blackout mechanism including apnoea		
- psychology		
- work and resistance under water		
- decompression theory and the bends		
Hyperbaric pathology	B	C
- acute conditions (barotrauma, decompression sickness)		

	- chronic conditions (long-term effects)		
	Hyperbaric oxygen and treatment tables	-	C
	Oxygen poisoning	A	C
	Inert gas effects (narcois, HPNS)	A	C
	Medication under pressure	B	C
	Other aspects of pathology (hypothermia, drowning, accidents under water)	A	C
	Fatal diving accidents	A	C
2	Diving technology and safety		
	Knowledge of operational diving procedures	A	B
	Knowledge of diving equipment	A	C
	Knowledge of diving tables	A	C
	Legislation and standards	B	C
	Safety planning and monitoring	A	C
3	Suitability to practice diving medicine		
	Medical criteria and contraindications for suitability to practice diving medicine	C	C
	Diagnostic examination of divers	C	C
	Legislation and standards for diving medicine tests at national and international level	C	C
4	Diving accidents		
	Diving accidents and incidents	A	C
	Treatment of diving accidents	A	C
	Rehabilitation and monitoring following diving accidents	B	C
5	Other aspects		
	Diving medicine examinations at national and international level	-	C
6	Practical training		
	Suitability for practising diving medicine: working under excess pressure	-	+
	Practical experience with first aid on the site of diving accidents	-	+
	Practical experience in dealing with diving accidents	-	+
	Introduction and demonstration of professional diving	+	+
	Demonstration of the treatment of diving accidents in compression centres	+	+

* A = basic knowledge; B = extensive knowledge; C = expert knowledge.

The minimum length of courses is:

Category I	25 hours of lectures + 3 hours of practical sessions
Category II	60 hours of lectures + practical experience

3. Quality control

The following requirements must be met by individuals wishing to renew their certificates:

- I. at least ten tests a year and participation in at least one refresher course every two years;
- II. continuous experience in diving medicine and participation in / attendance at a course or conference.

Annex XVII. relating to Article 6.7

With regard to occupational health medical examinations of individuals performing diving work, caisson work, or other work under excess pressure:

Any person performing diving work, caisson work or other work under excess pressure:

- must be able to perform the work under excess pressure unimpeded, capable of swimming/walking under physically demanding conditions, able to communicate and mentally fit to take on the responsibility;
- must not put him/herself or another team member at risk as a result of a medical condition when performing work under excess pressure, such as loss of consciousness, loss of orientation or panic attack;
- must not be suffering from a condition that could be aggravated by working under excess pressure;
- must not be suffering from a condition that could give rise to the onset of a diving disease such as decompression sickness or barotrauma.

Examinations of individuals about to start working under excess pressure must be carried out by a diving doctor holding a diving doctor B certificate at a centre which has all the facilities required to investigate all aspects. Periodic examinations may also be carried out by doctors holding a diving doctor A certificate. Individuals who have had a diving disease such as decompression sickness, air embolism or a condition regarded as an absolute contra-indication must be re-examined by a diving doctor holding a diving doctor B certificate.

Examinations must cover at least the following aspects:

		CI	Examination/Biometry
1	Infectious diseases		
	- if untreated	R	
2	Endocrine organs		
	- diabetes mellitus	A	
3	Mental conditions		
	- Psychosyndromes and psychotic conditions	A	
	- claustrophobia	A	
4	Nervous system		* baseline
	- episodes of loss of consciousness, fits, loss of vision, loss of motor power and/or orientation	A	neurological status * vision

	- dizziness	A	
	- epilepsy	A	
5	Circulation		* ergometry
	- septum defects	A	
	- angina pectoris	A	
	- decompensatio cordis	A	
	- myocardial infarction	A	
	- arrhythmia	R	
	- hypertension	R	
6	Respiratory tract		* 1 st examination: chest X-ray
	- air embolism	A	* lung function examination
	- chronic aspecific respiratory condition	A	
7	Digestion		
	- hiatus hernia / abdominal hernia	R	
	- acute and/or chronic hepatitis or pancreatitis	A	
	- haemorrhoids	R	
8	Urogenital tract		* urine test
	- conditions with abnormal kidney function	A	
9	ENT		* sound audiogram
	- chronic otitis media	A	
	- middle ear implants	A	
	- Ménière's disease	A	
	- mastoiditis	A	
	- dental implants	R	
10	Haematology		* complete
	- thalassaemia major	A	blood count including Hb, Ht and leukocytes
			* glucose
			* sickle-cell
			exclusion on indication

11 Other conditions

- malignancy

R

CI (contra-indication): A = absolute, R = relative (usually until corrected)

Annex XVIII. relating to Article 8.10

[- to be inserted: pictures]

1. Prohibition boards

Intrinsic properties:

- round;
- black pictogram on a white background, red edge and line running diagonally from left to right across the pictogram. The red colour must cover at least 35% of the surface of the board.

No smoking

Fire, naked flames and smoking prohibited

No access for pedestrians

Do not use water for fire-fighting

Not drinking water

No access for unauthorised persons

No access for vehicles

Do not touch

2. Warning boards

Intrinsic properties:

- triangular;
- black pictogram on a yellow background, black edge. The yellow colour must cover at least 50% of the surface of the board.

Inflammable substances or high temperature

Explosive substances

Poisonous substances

Corrosive substances

Radioactive substances or ionising radiation

Objects overhead

Vehicles

Danger of electrical voltage

Danger

Laser beam

Oxidising substances

Non-ionising radiation

Strong magnetic field

Danger of tripping

Height difference: danger of falling

Biological risk

Low temperature

Harmful or irritating substances

Explosive atmosphere

3. Instruction boards

Intrinsic properties:

- round;

- white pictogram on a blue background. The blue colour must cover at least 50% of the surface of the board

Eye protection must be worn

Safety helmet must be worn

Ear protectors must be worn

Respiratory devices must be worn

Safety shoes must be worn

Safety gloves must be worn

Safety pack must be worn

Facial protection must be worn

Individual harness must be worn

Cross here (pedestrians)

General prohibition (with another board where appropriate)

4. Rescue boards

Intrinsic properties:

- square or rectangular;
- white pictogram on a green background. The green colour must cover at least 50% of the surface of the board.

Escape route - emergency exit

This way Used in conjunction with one of the boards below

First aid

Stretcher

Safety shower

Eye rinse

Telephone for rescue and first aid

5. Boards relating to fire extinguishing material

Intrinsic properties:

- square or rectangular;
- white pictogram on a red background. The red colour must cover at least 50% of the surface of the board.

Fire hose

Ladder

Extinguishing equipment

Telephone for fire extinguishing service

This way (used in conjunction with one of the boards below)

Annex XIX. relating to Article 8.26

[- to be inserted: pictures]

Hand and arm signals

A. General gestures

Meaning	Description	Illustration
BEGIN Attention! Instruction beginning	Both arms are held horizontally with the palms upwards	
STOP Interruption End of movement	The right hand is lifted with the palm facing forwards	
END End of the activity	Hands clasped at chest height	

B. Vertical movements

Meaning	Description	Illustration
LIFT	With the right arm raised and the right palm facing forward, slowly make a circular movement	
LOWER	With the right arm lowered and the right palm facing inwards, slowly make a circular movement	
VERTICAL DISTANCE	The distance is indicated with the hands	

C. Horizontal movements

Meaning	Description	Illustration
FORWARDS	Both arms bent, palms facing inwards, move the forearms slowly towards the body	
BACKWARDS	Both arms bent, palms facing outwards, move the forearms slowly away from the body	
RIGHT from the item of view of the person giving the signal	With the right arm held more or less horizontal and the right palm facing down, make slow movements to indicate the direction	
LEFT from the item of view of the person giving the signal	With the left arm held more or less horizontal and the left palm facing down, make slow movements to indicate the direction	
HORIZONTAL DISTANCE	The distance is indicated with the hands	

D. Danger

Meaning	Description	Illustration
DANGER	Both hands raised, palms facing forwards	
MOVE QUICKLY	The coded gesture indicating the movement to be made is performed very quickly	
MOVE SLOWLY	The coded gesture indicating the movement to be made is performed very slowly	