

Summary of ILO, OSH Conventions and Recommendations



The following abridged versions of the International Labour Organisation (ILO), occupational safety and health (OSH) conventions and recommendations are included to show how member states of the United Nations have evolved fundamental standards for the improvement in the health safety and welfare of workers over time.

International labour standards are legal instruments drawn up by the ILO and set out basic principles and rights at work. They are either conventions, which are legally binding international treaties that may be ratified by member states, or recommendations, which serve as accompanying non-binding guidelines.

ASBESTOS CONVENTION C162, 1986

Convention concerning Safety in the Use of Asbestos

PART I. SCOPE AND DEFINITIONS

Article 1

1. This Convention applies to all activities involving exposure of workers to asbestos in the course of work.

Article 2

For the purpose of this Convention-

(a) the term asbestos means the fibrous form of mineral silicates belonging to rock-forming minerals of the serpentine group, i.e. chrysotile (white asbestos), and of the amphibole group, i.e. actinolite, amosite (brown asbestos, cummingtonite-grunerite), anthophyllite, crocidolite (blue asbestos), tremolite, or any mixture containing one or more of these.

PART II. GENERAL PRINCIPLES

Article 3

1. National laws or regulations shall prescribe the measures to be taken for the prevention and control of, and protection of workers against, health hazards due to occupational exposure to asbestos.

PART III. PROTECTIVE AND PREVENTIVE MEASURES

Article 9

The national laws or regulations adopted pursuant to Article 3 of this Convention shall provide that exposure to asbestos shall be prevented or controlled by one or more of the following measures:

(a) making work in which exposure to asbestos may occur subject to regulations prescribing adequate engineering controls and work practices, including workplace hygiene;

(b) prescribing special rules and procedures, including authorisation, for the use of asbestos or of certain types of asbestos or products containing asbestos or for certain work processes.

Article 11

1. The use of crocidolite and products containing this fibre shall be prohibited.

Article 15

1. The competent authority shall prescribe limits for the exposure of workers to asbestos or other exposure criteria for the evaluation of the working environment.

Article 16

Each employer shall be made responsible for the establishment and implementation of practical measures for the prevention and control of the exposure of the workers he employs to asbestos and for their protection against the hazards due to asbestos.

Article 19

1. In accordance with national law and practice, employers shall dispose of waste containing asbestos in a manner that does not pose a health risk to the workers concerned, including those handling asbestos waste, or to the population in the vicinity of the enterprise.

PART IV. SURVEILLANCE OF THE WORKING ENVIRONMENT AND WORKERS' HEALTH

Article 20

1. Where it is necessary for the protection of the health of workers, the employer shall measure the concentrations of airborne asbestos dust in workplaces, and shall monitor the exposure of workers to asbestos at intervals and using methods specified by the competent authority.

For the full text of this Convention go to the ILO website: http://www.ilo.org/dyn/normlex/en/f?p=1000:12100:0::NO::P12100_ILO_CODE:C162

ASBESTOS RECOMMENDATION R172, 1986

Recommendation concerning Safety in the Use of Asbestos

I. SCOPE AND DEFINITIONS

1. (1) The provisions of the Asbestos Convention, 1986, and of this Recommendation should be applied to all activities involving a risk of exposure of workers to asbestos in the course of work.

(2) Measures should be taken, in accordance with national law and practice, to afford to self-employed persons protection analogous to that provided for in the Asbestos Convention, 1986, and in this Recommendation.

(3) Employment of young persons of less than 18 years of age in activities involving a risk of occupational exposure to asbestos should receive special attention, as required by the competent authority.

II. GENERAL PRINCIPLES

4. The measures prescribed pursuant to Article 3 of the Asbestos Convention, 1986, should be so framed as to cover the diversity of risks of occupational exposure to asbestos in all branches of economic activity, and should be drawn up with due regard to Articles 1 and 2 of the Occupational Cancer Convention, 1974.

5. The competent authority should periodically review the measures prescribed, taking into account the Code of practice on safety in the use of asbestos published by the International Labour Office and other codes of practice or guides which may be established by the International Labour Office and the conclusions of meetings of experts which may be convened by it, as well as information from other competent bodies on asbestos and substitute materials.

6. The competent authority, in the application of the provisions of this Recommendation, should act after consultation with the most representative organisations of employers and workers.

III. PROTECTIVE AND PREVENTIVE MEASURES

13. (1) With a view to the effective enforcement of the national laws and regulations, the competent authority should prescribe the information to be supplied in the notifications of work with asbestos provided for in Article 13 of the Asbestos Convention, 1986.

(2) This information should include in particular the following:

- (a) the type and quantity of asbestos used;
- (b) the activities and processes carried out;
- (c) the products manufactured;
- (d) the number of workers exposed and the level and frequency of their exposure;
- (e) the preventive and protective measures taken to comply with the national laws and regulations;
- (f) any other information necessary to safeguard the workers' health.

IV. SURVEILLANCE OF THE WORKING ENVIRONMENT AND WORKERS' HEALTH

31. (1) For the prevention of disease and functional impairment related to exposure to asbestos, all workers assigned to work involving exposure to asbestos should be provided, as appropriate, with-

- (a) a pre-assignment medical examination;
- (b) periodic medical examinations at appropriate intervals;

(c) other tests and investigations, in particular chest radiographs and lung function tests, which may be necessary to supervise their state of health in relation to the occupational hazard and to identify early indicators of disease caused by asbestos.

(2) The intervals between medical examinations should be determined by the competent authority, taking into account the level of exposure and the workers' state of health in relation to the occupational hazard.

(3) The competent authority should ensure that provision is made, in accordance with national law and practice, for appropriate medical examinations to continue to be available to workers after termination of an assignment involving exposure to asbestos.

(4) The examinations, tests and investigations provided for in subparagraphs (1) and (3) above should be carried out as far as possible in working hours and should entail no cost to the worker.

(5) Where the results of medical tests or investigations reveal clinical or preclinical effects, measures should be taken to prevent or reduce exposure of the workers concerned and to prevent further deterioration of their health.

36. (1) The records of the monitoring of the working environment should be kept for a period of not less than 30 years.

(2) Records of the monitoring of exposure of workers as well as the sections of their medical files relevant to health hazards due to exposure to asbestos and chest radiographs should be kept for a period of not less than 30 years following termination of an assignment involving exposure to asbestos.

V. INFORMATION AND EDUCATION

40. The competent authority should take measures to promote the training and information of all persons concerned with respect to the prevention and control of, and protection against, health hazards due to occupational exposure to asbestos.

41. The competent authority, in consultation with the most representative organisations of employers and workers concerned, should draw up suitable educational guides for employers, workers and others.

For the full text of this Recommendation go to the ILO website: http://www.ilo.org/dyn/normlex/en/f?p=1000:12100:0::NO::P12100_ILO_CODE:R172

BENZENE CONVENTION C136, 1971

Convention concerning Protection against Hazards of Poisoning Arising from Benzene

Article 1

This Convention applies to all activities involving exposure of workers to:

- (a) the aromatic hydrocarbon benzene C₆H₆, hereinafter referred to as benzene;
- (b) products the benzene content of which exceeds 1 per cent by volume, hereinafter referred to as products containing benzene.

Article 4

1. The use of benzene and of products containing benzene shall be prohibited in certain work process to be specified by national laws or regulations.
2. This prohibition shall at least include the use of benzene and of products containing benzene as a solvent or diluent, except where the process is carried out in an enclosed system or where there are other equally safe methods of work.

For the full text of this Convention go to the ILO website: http://ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:55:0::NO::P55_TYPE,P55_LANG,P55_DOCUMENT,P55_NODE:CON,en,C136,%2FDocument

CHEMICALS CONVENTION C170, 1990

Convention concerning Safety in the use of Chemicals at Work

Benzene, asbestos and carcinogens each have their own Conventions: Benzene Convention C136, 1971 (see page 512), Asbestos Convention C162, 1986 (see page 510) and Occupational Cancer Convention C139, 1974 (see page 519).

PART I. SCOPE AND DEFINITIONS

Article 1

1. This Convention applies to all branches of economic activity in which chemicals are used.

Article 2

For the purposes of this Convention:

- (a) the term chemicals means chemical elements and compounds, and mixtures thereof, whether natural or synthetic;
- (b) the term hazardous chemical includes any chemical which has been classified as hazardous in accordance

with Article 6 or for which relevant information exists to indicate that the chemical is hazardous;

PART III. CLASSIFICATION AND RELATED MEASURES

Article 6

Classification systems

1. Systems and specific criteria appropriate for the classification of all chemicals according to the type and degree of their intrinsic health and physical hazards and for assessing the relevance of the information required to determine whether a chemical is hazardous shall be established by the competent authority, or by a body approved or recognised by the competent authority, in accordance with national or international standards.

Article 7

Labelling and marking

1. All chemicals shall be marked so as to indicate their identity.

Article 8

Chemical safety data sheets

1. For hazardous chemicals, chemical safety data sheets containing detailed essential information regarding their identity, supplier, classification, hazards, safety precautions and emergency procedures shall be provided to employers.

Article 9

Responsibilities of suppliers

1. Suppliers of chemicals, whether manufacturers, importers or distributors, shall ensure that:

- (a) such chemicals have been classified in accordance with Article 6 on the basis of knowledge of their properties and a search of available information or assessed in accordance with paragraph 3 to determine whether they are hazardous chemicals.

PART IV. RESPONSIBILITIES OF EMPLOYERS

Article 10

Identification

1. Employers shall ensure that all chemicals used at work are labelled or marked as required by Article 7 and that chemical safety data sheets have been provided as required by Article 8 and are made available to workers and their representatives.

Article 11

Transfer of chemicals

Employers shall ensure that when chemicals are transferred into other containers or equipment, the contents are indicated in a manner which will make known to workers their identity, any hazards associated with their use and any safety precautions to be observed.

Article 12

Exposure

Employers shall:

(a) ensure that workers are not exposed to chemicals to an extent which exceeds exposure limits or other exposure criteria for the evaluation and control of the working environment established by the competent authority, or by a body approved or recognised by the competent authority, in accordance with national or international standards.

Article 13

Operational control

1. Employers shall make an assessment of the risks arising from the use of chemicals at work, and shall protect workers against such risks by appropriate means.

2. Employers shall:

- (a) limit exposure to hazardous chemicals so as to protect the safety and health of workers;
- (b) provide first-aid;
- (c) make arrangements to deal with emergencies and disposal.

Article 15

Information and training

Employers shall:

- (a) inform the workers of the hazards associated with exposure to chemicals used at the workplace;
- (b) instruct the workers how to obtain and use the information provided on labels and chemical safety data sheets.

PART V. DUTIES OF WORKERS

Article 17

1. Workers shall co-operate as closely as possible with their employers in the discharge by the employers of their responsibilities and comply with all procedures and practices relating to safety in the use of chemicals at work.

2. Workers shall take all reasonable steps to eliminate or minimise risk to themselves and to others from the use of chemicals at work.

For the full text of this Convention go to the ILO website: http://www.ilo.org/dyn/normlex/en/f?p=1000:12100:0::NO::P12100_ILO_CODE:C170

CHEMICALS RECOMMENDATION R177, 1990

Recommendation concerning Safety in the use of Chemicals at Work

I. GENERAL PROVISIONS

1. The provisions of this Recommendation should be applied in conjunction with those of the Chemicals Convention, 1990 (hereafter referred to as “the Convention”).

2. The most representative organisations of employers and workers concerned should be consulted on the measures to be taken to give effect to the provisions of this Recommendation.

3. The competent authority should specify categories of workers who for reasons of safety and health are not allowed to use specified chemicals or are allowed to use them only under conditions prescribed in accordance with national laws or regulations.

4. The provisions of this Recommendation should also apply to such self-employed persons as may be specified by national laws or regulations.

5. The special provisions established by the competent authority to protect confidential information, under Article 1, paragraph 2(b), and Article 18, paragraph 4, of the Convention.

II. CLASSIFICATION AND RELATED MEASURES

Classification

6. The criteria for the classification of chemicals established pursuant to Article 6, paragraph 1, of the Convention should be based upon the characteristics of chemicals.

Labelling and marking

8. (1) The requirements for the labelling and marking of chemicals established pursuant to Article 7 of the Convention, should be such as to enable persons handling or using chemicals to recognise and distinguish between them both when receiving and when using them, so that they may be used safely.

(2) The labelling requirements for hazardous chemicals should, in conformity with existing national or international systems, cover:

a) the information to be given on the label including as appropriate:

(i) trade names;

(ii) identity of the chemical;

(iii) name, address and telephone number of the supplier;

- (iv) hazard symbols;
 - (v) nature of the special risks associated with the use of the chemical;
 - (vi) safety precautions;
 - (vii) identification of the batch;
 - (viii) the statement that a chemical safety data sheet giving additional information is available from the employer;
 - (ix) the classification assigned under the system established by the competent authority;
- (b) the legibility, durability and size of the label;
- (c) the uniformity of labels and symbols, including colours.
- (3) The label should be easily understandable by workers.
- (4) In the case of chemicals not covered by subparagraph (2) above, the marking may be limited to the identity of the chemical.

9. Where it is impracticable to label or mark a chemical in view of the size of the container or the nature of the package, provision should be made for other effective means of recognition such as tagging or accompanying documents. However, all containers of hazardous chemicals should indicate the hazards of the contents through appropriate wording or symbols.

Chemical safety data sheets

10. (1) The criteria for the preparation of chemical safety data sheets for hazardous chemicals should ensure that they contain essential information including, as applicable:

- (a) chemical product and company identification (including trade or common name of the chemical and details of the supplier or manufacturer);
- (b) composition/information on ingredients (in a way that clearly identifies them for the purpose of conducting a hazard evaluation).

III. RESPONSIBILITIES OF EMPLOYERS

Monitoring of exposure

11. (1) Where workers are exposed to hazardous chemicals, the employer should be required to:

- (a) limit exposure to such chemicals so as to protect the health of workers;
- (b) assess, monitor and record, as necessary, the concentration of airborne chemicals at the workplace.

Operational control within the workplace

12. (1) Measures should be taken by employers to

protect workers against hazards arising from the use of chemicals at work, based upon the criteria established pursuant to Paragraph 13 below.

13. The competent authority should ensure that criteria are established for safety in the use of hazardous chemicals, including provisions covering, as applicable:

- (a) the risk of acute or chronic diseases due to entry into the body by inhalation, skin absorption or ingestion;
- (b) the risk of injury or disease from skin or eye contact;
- (c) the risk of injury from fire, explosion or other events resulting from physical properties or chemical reactivity;
- (d) the precautionary measures to be taken through:
 - (i) the choice of chemicals that eliminate or minimise such risks;
 - (ii) the choice of processes, technology and installations that eliminate or minimise such risks;
 - (iii) the use and proper maintenance of engineering control measures;
 - (iv) the adoption of working systems and practices that eliminate or minimise such risks;
 - (v) the adoption of adequate personal hygiene measures and provision of adequate sanitary facilities;
 - (vi) the provision, maintenance and use of suitable personal protective equipment and clothing, at no cost to the worker where the above measures have not proved sufficient to eliminate such risks;
 - (vii) the use of signs and notices;
 - (viii) adequate preparations for emergencies.

14. The competent authority should ensure that criteria are established for safety in the storage of hazardous chemicals, including provisions covering, as applicable:

- (a) the compatibility and segregation of stored chemicals;
- (b) the properties and quantity of chemicals to be stored;
- (c) the security and siting of and access to stores;
- (d) the construction, nature and integrity of storage containers;
- (e) loading and unloading of storage containers;
- (f) labelling and relabelling requirements;
- (g) precautions against accidental release, fire, explosion and chemical reactivity;
- (h) temperature, humidity and ventilation;

- (i) precautions and procedures in case of spillage;
- (j) emergency procedures;
- (k) possible physical and chemical changes in stored chemicals.

15. The competent authority should ensure that criteria consistent with national or international transport regulations are established for the safety of workers involved in the transport of hazardous chemicals.

Medical surveillance

18. (1) The employer, or the institution competent under national law and practice, should be required to arrange, through a method which accords with national law and practice, such medical surveillance of workers as is necessary.

V. RIGHTS OF WORKERS

26. Workers should receive:

- (a) information on the classification and labelling of chemicals and on chemical safety data sheets in forms and languages which they easily understand;
- (b) information on the risks which may arise from the use of hazardous chemicals in the course of their work;
- (c) instruction, written or oral, based on the chemical safety data sheet and specific to the workplace if appropriate;
- (d) training and, where necessary, retraining in the methods which are available for the prevention and control of, and for protection against, such risks, including correct methods of storage, transport and waste disposal as well as emergency and first-aid measures.

For the full text of this Recommendation go to the ILO website: http://www.ilo.org/dyn/normlex/en/f?p=1000:12100:0::NO::P12100_ILO_CODE:R177

HOURS OF WORK AND REST PERIODS (ROAD TRANSPORT) CONVENTION C153, 1979

Convention concerning Hours of Work and Rest Periods in Road Transport

Article 1

1. This Convention applies to wage-earning drivers working, whether for undertakings engaged in transport for third parties or for undertakings transporting goods or passengers for own account, on motor vehicles engaged professionally in the internal or international transport by road of goods or passengers.

2. Except as otherwise provided herein, this Convention further applies to owners of motor vehicles engaged

professionally in road transport and non-wage-earning members of their families, when they are working as drivers.

Article 4

1. For the purpose of this Convention the term hours of work means the time spent by wage-earning drivers on-

- (a) driving and other work during the running time of the vehicle; and
- (b) subsidiary work in connection with the vehicle, its passengers or its load.

2. Periods of mere attendance or stand-by, either on the vehicle or at the workplace and during which the drivers are not free to dispose of their time as they please, may be regarded as hours of work to an extent to be prescribed in each country by the competent authority or body, by collective agreements or by any other means consistent with national practice.

Article 5

1. No driver shall be allowed to drive continuously for more than four hours without a break.

2. The competent authority or body in each country, taking into account particular national conditions, may authorise the period referred to in paragraph 1 of this Article to be exceeded by not more than one hour.

3. The length of the break referred to in this Article and, as appropriate, the way in which the break may be split shall be determined by the competent authority or body in each country.

4. The competent authority or body in each country may specify cases in which the provisions of this Article are inapplicable because drivers have sufficient breaks as a result of stops provided for in the timetable or as a result of the intermittent nature of the work.

Article 6

1. The maximum total driving time, including overtime, shall exceed neither nine hours per day nor 48 hours per week.

2. The total driving times referred to in paragraph 1 of this Article may be calculated as an average over a number of days or weeks to be determined by the competent authority or body in each country.

3. The total driving times referred to in paragraph 1 of this Article shall be reduced in the case of transport activities carried out in particularly difficult conditions. The competent authority or body in each country shall define these activities and determine the total driving times to be applied in respect of the drivers concerned.

Article 10

1. The competent authority or body in each country shall-

(a) provide for an individual control book and prescribe the conditions of its issue, its contents and the manner in which it shall be kept by the drivers; and

(b) lay down a procedure for notification of the hours worked in accordance with Article 9, paragraph 1, of this Convention and the circumstances justifying them.

2. Each employer shall-

(a) keep a record, in a form approved by the competent authority or body in each country, indicating the hours of work and of rest of every driver employed by him; and

(b) place this record at the disposal of the supervisory authorities in a manner determined by the competent authority or body in each country.

Article 15

1. This Convention shall be binding only upon those Members of the International Labour Organisation whose ratifications have been registered with the Director-General.

2. It shall come into force twelve months after the date on which the ratifications of two Members have been registered with the Director-General.

3. Thereafter, this Convention shall come into force for any Member twelve months after the date on which its ratification has been registered.

For the full text of this Convention go to the ILO website: http://www.ilo.org/dyn/normlex/en/f?p=1000:12100:0::NO::P12100_ILO_CODE:C153

HOURS OF WORK AND REST PERIODS (ROAD TRANSPORT) RECOMMENDATION R161, 1979

Recommendation concerning Hours of Work and Rest Periods in Road Transport

I. SCOPE

1. This Recommendation applies to wage earners working, whether for undertakings engaged in transport for third parties or for undertakings transporting goods or passengers for own account, on motor vehicles engaged professionally in the internal or international transport by road of goods or passengers, namely as-

(a) drivers; or

(b) drivers' mates, attendants, conductors and other persons who travel with a road transport vehicle in a capacity connected with the vehicle, its passengers or its load.

II. CONSULTATION OF EMPLOYERS AND WORKERS

4. The representative organisations of employers and workers concerned should be consulted by the competent authority or body in each country before decisions are taken on any matters covered by the provisions of this Recommendation.

III. DEFINITION OF HOURS OF WORK

5. For the purpose of this Recommendation the term hours of work means the time spent by the persons covered by Paragraph 1 of the Recommendation on-

(a) Driving and other work during the running time of the vehicle.

(b) Subsidiary work in connection with the vehicle, its passengers or its load.

6. Periods of mere attendance or stand-by, either on the vehicle or at the workplace and during which the workers are not free to dispose of their time as they please, as well as time spent by them on training and advanced training when agreed upon between the organisations of employers and workers concerned, may be regarded as hours of work to an extent to be prescribed in each country by the competent authority or body, by collective agreements or by any other means consistent with national practice.

IV. NORMAL HOURS OF WORK

A. NORMAL WEEKLY HOURS OF WORK

7. Normal hours of work, namely those in respect of which national provisions concerning overtime do not apply, should not exceed 40 per week.

8. The normal weekly hours of work referred to in Paragraph 7 of this Recommendation may be introduced gradually and by stages.

9. (1) In the case of long-distance transport and in other transport activities where the standard covered by Paragraph 7 of this Recommendation would be impracticable if applied to one week, this standard may be applied as an average over a maximum period of four weeks.

(2) The competent authority or body in each country should determine the maximum number of hours of work in a single week when applied as an average.

B. NORMAL DAILY HOURS OF WORK

10. Normal hours of work, as defined in Paragraph 7 of this Recommendation, should not exceed eight per day as an average.

11. (1) when normal weekly hours of work are unevenly distributed over the various days of the week, the normal hours of work should not exceed ten per day.

(2) When the normal daily hours of work include substantial periods of mere attendance or stand-by or interruptions of work or when it is necessary to enable the crew of the vehicle to reach a suitable place of rest, the maximum limit referred to in subparagraph (1) of this Paragraph may be more than ten hours but not more than 12 hours per day.

V. MAXIMUM PERIOD OF CONTINUOUS WORK

12. (1) Every wage-earning worker should be entitled to a break after a continuous period of five hours of work.

(2) The length of the break and the way in which the break may be split should be determined by the competent authority or body in each country.

VI. DAILY SPREADOVER

13. (1) The competent authority or body in each country should prescribe for the various branches of the road transport industry the maximum number of hours which may separate two successive daily rest periods.

(2) The spreadover should not be so long as to reduce the period of daily rest to which the workers are entitled.

VII. DRIVING TIME

14. (1) No driver should be allowed to drive continuously for more than four hours without a break.

(2) Taking into account particular national conditions, the competent authority may authorise the period to be exceeded, to a maximum of one hour.

15. The maximum total driving time, including overtime, should not exceed nine hours per day and a total of 48 hours per week.

VIII. DAILY REST

18. The daily rest of persons should be at least 11 consecutive hours during any 24-hour period starting from the beginning of the working day.

19. The daily rest may be calculated as an average over periods to be determined by the competent authority or body in each country: Provided that the daily rest should in no case be less than eight hours.

IX. WEEKLY REST

23. The minimum duration of the weekly rest should be 24 consecutive hours, preceded or followed by the daily rest.

24. The weekly rest should, as far as possible, coincide with a Sunday or with traditional and customary days of rest, and it should during a given period be possible for this rest to be spent at home a certain number of times, to be determined by the competent authority or body in each country.

25. For long-distance transport, it should be possible to cumulate weekly rest over two consecutive weeks. In appropriate cases, the competent authority or body in each country may approve the accumulation of this rest over a longer time.

X. EXCEPTIONS AND OVERTIME

26. The competent authority or body in each country may permit temporary exceptions, but only in so far as may be necessary for the performance of indispensable work, extensions of the hours of work, extensions of the driving time and reductions in the duration of the rest periods.

27. The competent authority or body in each country may grant authorisations for an extension of the normal hours of work, as a temporary exception, in case of abnormal pressure of work.

28. All hours worked in excess of normal hours should be considered as overtime and, as such, remunerated at a higher rate or, as prescribed by national laws or regulations, collective agreements or in any other manner consistent with national practice, otherwise compensated.

XI. SUPERVISORY MEASURES

29. The competent authority or body in each country should-

(a) provide for an individual control book and prescribe the conditions of its issue, its contents and the manner in which it shall be kept by the drivers;

(b) lay down a procedure for notification of the hours worked in accordance with Paragraph 26 of this Recommendation and the circumstances justifying them; and

(c) lay down a procedure for authorising the hours that may be worked in accordance with Paragraph 27 of this Recommendation as well as the number of hours for which the authorisation may be granted, according to the nature of the transport operations and the method of calculating the hours of work.

30. Each employer should-

(a) keep a record, in a form approved by the competent authority or body in each country, indicating the hours of work and of rest of every person covered by this Recommendation and employed by him;

(b) place this record at the disposal of the supervisory authorities in a manner to be determined by the competent authority or body in each country.

31. The traditional means of supervision referred to in Paragraphs 29 and 30 of this Recommendation should, if this proves to be necessary for certain categories of transport, be replaced or supplemented as far as possible by recourse to modern methods, as for instance tachographs, according to rules to be established by the competent authority or body in each country.

32. The competent authority or body in each country should make provision for-

(a) an adequate inspection system, with verification carried out in the undertaking and on the roads; and

(b) appropriate penalties in the event of breaches of the provisions giving effect to this Recommendation.

XII. MEANS AND METHODS OF APPLICATION

33. (1) The provisions of this Recommendation may be applied by laws or regulations, collective agreements, arbitration awards or a combination of these methods, or in any other manner consistent with national practice which may be appropriate, account being taken of national conditions and the needs of each category of transport.

(2) The provisions of this Recommendation which have a direct bearing on road safety, namely those relating to the maximum period of continuous work, driving time, daily rest and supervisory measures, should preferably be applied by laws or regulations.

For the full text of this Recommendation go to the ILO website: http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312499:NO

HYGIENE (COMMERCE AND OFFICES) CONVENTION C120, 1964

Convention concerning Hygiene in Commerce and Offices

PART I. OBLIGATIONS OF PARTIES

Article 1

This Convention applies to-

(a) trading establishments;

(b) establishments, institutions and administrative services in which the workers are mainly engaged in office work.

PART II. GENERAL PRINCIPLES

Article 7

All premises used by workers, and the equipment of such premises, shall be properly maintained and kept clean.

Article 8

All premises used by workers shall have sufficient and suitable ventilation, natural or artificial or both, supplying fresh or purified air.

Article 9

All premises used by workers shall have sufficient and suitable lighting; workplaces shall, as far as possible, have natural lighting.

Article 10

As comfortable and steady a temperature as circumstances permit shall be maintained in all premises used by workers.

Article 11

All workplaces shall be so laid out and work-stations so arranged that there is no harmful effect on the health of the worker.

Article 12

A sufficient supply of wholesome drinking water or of some other wholesome drink shall be made available to workers.

Article 13

Sufficient and suitable washing facilities and sanitary conveniences shall be provided and properly maintained.

Article 14

Sufficient and suitable seats shall be supplied for workers and workers shall be given reasonable opportunities of using them.

Article 15

Suitable facilities for changing, leaving and drying clothing which is not worn at work shall be provided and properly maintained.

Article 16

Underground or windowless premises in which work is normally performed shall comply with appropriate standards of hygiene.

Article 17

Workers shall be protected by appropriate and practicable measures against substances, processes and techniques which are obnoxious, unhealthy or toxic or for any reason harmful. Where the nature of the work so requires, the competent authority shall prescribe personal protective equipment.

Article 18

Noise and vibrations likely to have harmful effects on

workers shall be reduced as far as possible by appropriate and practicable measures.

Article 19

Every establishment, institution or administrative service, or department thereof, to which this Convention applies shall, having regard to its size and the possible risk-

- (a) maintain its own dispensary or first-aid post; or
- (b) maintain a dispensary or first-aid post jointly with other establishments, institutions or administrative services, or departments thereof; or
- (c) have one or more first-aid cupboards, boxes or kits.

For the full text of this Convention go to the ILO website: http://www.ilo.org/dyn/normlex/en/f?p=1000:12100:0::NO::P12100_ILO_CODE:C120

OCCUPATIONAL CANCER CONVENTION C139, 1974

Convention concerning Prevention and Control of Occupational Hazards caused by Carcinogenic Substances and Agents

Article 1

1. Each Member which ratifies this Convention shall periodically determine the carcinogenic substances and agents to which occupational exposure shall be prohibited or made subject to authorisation or control, and those to which other provisions of this Convention shall apply.

Article 2

1. Each Member which ratifies this Convention shall make every effort to have carcinogenic substances and agents to which workers may be exposed in the course of their work replaced by non-carcinogenic substances or agents or by less harmful substances or agents.

Article 4

Each Member which ratifies this Convention shall take steps so that workers who have been, are, or are likely to be exposed to carcinogenic substances or agents are provided with all the available information on the dangers involved and on the measures to be taken.

Article 5

Each Member which ratifies this Convention shall take measures to ensure that workers are provided with such medical examinations or biological or other tests or investigations during the period of employment and thereafter as are necessary to evaluate their exposure and supervise their state of health in relation to the occupational hazards.

For the full text of this Convention go to the ILO website: http://www.ilo.org/dyn/normlex/en/f?p=NORMLEX:12100:0::NO:12100:P12100_ILO_CODE:C139

OCCUPATIONAL CANCER RECOMMENDATION R147, 1974

Recommendation concerning Prevention and Control of Occupational Hazards caused by Carcinogenic Substances and Agents

I. GENERAL PROVISIONS

1. Every effort should be made to replace carcinogenic substances and agents to which workers may be exposed in the course of their work by non-carcinogenic substances or agents or by less harmful substances or agents; in the choice of substitute substances or agents account should be taken of their carcinogenic, toxic and other properties.
2. The number of workers exposed to carcinogenic substances or agents and the duration and degree of such exposure should be reduced to the minimum compatible with safety.

II. PREVENTIVE MEASURES

6. The competent authority should periodically determine the carcinogenic substances and agents to which occupational exposure should be prohibited or made subject to authorisation or control,.
7. In making such determinations the competent authority should give consideration to the latest information contained in the codes of practice or guides which may be established by the International Labour Office, and in the conclusions of meetings of experts which may be convened by the International Labour Office, as well as to information from other competent bodies.

III. SUPERVISION OF HEALTH OF WORKERS

11. Provision should be made, by laws or regulations or any other method consistent with national practice and conditions, for all workers assigned to work involving exposure to specified carcinogenic substances or agents to undergo as appropriate-
 - (a) a pre-assignment medical examination;
 - (b) periodic medical examinations at suitable intervals;
 - (c) biological or other tests and investigations which may be necessary to evaluate their exposure and supervise their state of health in relation to the occupational hazards.

IV. INFORMATION AND EDUCATION

16.(1) The competent authority should promote epidemiological and other studies and collect and disseminate information relevant to occupational cancer risks, with the assistance as appropriate of international and national organisations, including organisations of employers and workers.

(2) It should endeavour to establish the criteria for determining the carcinogenicity of substances and agents.

V. MEASURES OF APPLICATION

22. Each Member should:-

(a) by laws or regulations or any other method consistent with national practice and conditions, take such steps, including the provision of appropriate penalties, as may be necessary to give effect to the provisions of this Recommendation;

(b) in accordance with national practice, specify the bodies or persons on whom the obligation of compliance with the provisions of this Recommendation rests;

(c) provide appropriate inspection services for the purpose of supervising the application of the provisions of this Recommendation, or satisfy itself that appropriate inspection is carried out.

For the full text of this Recommendation go to the ILO website: http://www.ilo.org/dyn/normlex/en/f?p=1000:12100:0::NO::P12100_ILO_CODE:R147

OCCUPATIONAL HEALTH SERVICES CONVENTION C161, 1985

Convention concerning Occupational Health Services

PART I. PRINCIPLES OF NATIONAL POLICY

Article 1

For the purpose of this Convention-

(a) the term occupational health services means services entrusted with essentially preventive functions and responsible for advising the employer, the workers and their representatives in the undertaking on-

(i) the requirements for establishing and maintaining a safe and healthy working environment which will facilitate optimal physical and mental health in relation to work;

(ii) the adaptation of work to the capabilities of workers in the light of their state of physical and mental health;

(b) the term workers' representatives in the undertaking means persons who are recognised as such under national law or practice.

PART II. FUNCTIONS

Article 5

Without prejudice to the responsibility of each employer for the health and safety of the workers in his employment, and with due regard to the necessity for the workers to participate in matters of occupational health and safety, occupational health services shall have such of the following functions as are adequate and appropriate to the occupational risks of the undertaking:

(a) identification and assessment of the risks from health hazards in the workplace;

(b) surveillance of the factors in the working environment and working practices which may affect workers' health, including sanitary installations, canteens and housing where these facilities are provided by the employer;

(c) advice on planning and organisation of work, including the design of workplaces, on the choice, maintenance and condition of machinery and other equipment and on substances used in work;

(d) participation in the development of programmes for the improvement of working practices as well as testing and evaluation of health aspects of new equipment;

(e) advice on occupational health, safety and hygiene and on ergonomics and individual and collective protective equipment;

(f) surveillance of workers' health in relation to work;

(g) promoting the adaptation of work to the worker;

(h) contribution to measures of vocational rehabilitation;

(i) collaboration in providing information, training and education in the fields of occupational health and hygiene and ergonomics;

(j) organising of first-aid and emergency treatment;

(k) participation in analysis of occupational accidents and occupational diseases.

PART IV. CONDITIONS OF OPERATION

Article 9. (1) In accordance with national law and practice, occupational health services should be multidisciplinary. The composition of the personnel shall be determined by the nature of the duties to be performed.

(2) Occupational health services shall carry out their functions in co-operation with the other services in the undertaking.

(3) Measures shall be taken, in accordance with national law and practice, to ensure adequate co-operation and co-ordination between occupational health services and,

as appropriate, other bodies concerned with the provision of health services.

Article 10

The personnel providing occupational health services shall enjoy full professional independence from employers, workers, and their representatives, where they exist, in relation to the functions listed in Article 5.

Article 11

The competent authority shall determine the qualifications required for the personnel providing occupational health services, according to the nature of the duties to be performed and in accordance with national law and practice.

Article 12

The surveillance of workers' health in relation to work shall involve no loss of earnings for them, shall be free of charge and shall take place as far as possible during working hours.

Article 13

All workers shall be informed of health hazards involved in their work.

Article 14

Occupational health services shall be informed by the employer and workers of any known factors and any suspected factors in the working environment which may affect the workers' health.

For the full text of this Convention go to the ILO website: https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312306:NO

OCCUPATIONAL HEALTH SERVICES RECOMMENDATION R171, 1985

Recommendation concerning Occupational Health Services

I. PRINCIPLES OF NATIONAL POLICY

1. Each Member should, in the light of national conditions and practice and in consultation with the most representative organisations of employers and workers, where they exist, formulate, implement and periodically review a coherent national policy on occupational health services, which should include general principles governing their functions, organisation and operation.

2. (1) Each Member should develop progressively occupational health services for all workers, including those in the public sector and the members of production co-operatives, in all branches of economic activity and all undertakings. The provision made should be

adequate and appropriate to the specific health risks of the undertakings.

(2) Provision should also be made for such measures as may be necessary and reasonably practicable to make available to self-employed persons protection analogous to that provided for in the Occupational Health Services Convention, 1985, and in this Recommendation.

II. FUNCTIONS

3. The role of occupational health services should be essentially preventive.

4. Occupational health services should establish a programme of activity adapted to the undertaking or undertakings they serve, taking into account in particular the occupational hazards in the working environment as well as the problems specific to the branches of economic activity concerned.

A. Surveillance of the working environment

5. (1) The surveillance of the working environment should include-

(a) identification and evaluation of the environmental factors which may affect the workers' health;

(b) assessment of conditions of occupational hygiene and factors in the organisation of work which may give rise to risks for the health of workers;

(c) assessment of collective and personal protective equipment;

(d) assessment where appropriate of exposure of workers to hazardous agents by valid and generally accepted monitoring methods;

(e) assessment of control systems designed to eliminate or reduce exposure.

(2) Such surveillance should be carried out in liaison with the other technical services of the undertaking and in co-operation with the workers concerned and their representatives in the undertaking or the safety and health committee, where they exist.

B. Surveillance of the workers' health

11. (1) Surveillance of the workers' health should include, in the cases and under the conditions specified by the competent authority, all assessments necessary to protect the health of the workers, which may include-

(a) health assessment of workers before their assignment to specific tasks which may involve a danger to their health or that of others;

(b) health assessment at periodic intervals during employment which involves exposure to a particular hazard to health;

(c) health assessment on resumption of work after a prolonged absence for health reasons for the purpose of determining its possible occupational causes, of recommending appropriate action to protect the workers and of determining the worker's suitability for the job and needs for reassignment and rehabilitation;

(d) health assessment on and after the termination of assignments involving hazards which might cause or contribute to future health impairment.

(2) Provisions should be adopted to protect the privacy of the workers and to ensure that health surveillance is not used for discriminatory purposes or in any other manner prejudicial to their interests.

14. (1) Occupational health services should record data on workers' health in personal confidential health files. These files should also contain information on jobs held by the workers, on exposure to occupational hazards involved in their work, and on the results of any assessments of workers' exposure to these hazards.

C. Information, education, training, advice

19. Occupational health services should participate in designing and implementing programmes of information, education and training on health and hygiene in relation to work for the personnel of the undertaking.

D. First-aid, treatment and health programmes

23. Taking into account national law and practice, occupational health services in undertakings should provide first-aid and emergency treatment in cases of accident or indisposition of workers at the workplace and should collaborate in the organisation of first-aid.

IV. CONDITIONS OF OPERATION

39. (1) The competent authority may prescribe standards for the premises and equipment necessary for occupational health services to exercise their functions.

(2) Occupational health services should have access to appropriate facilities for carrying out the analyses and tests necessary for surveillance of the workers' health and of the working environment.

For the full text of this Recommendation go to the ILO website: http://www.ilo.org/dyn/normlex/en/f?p=1000:12100:0::NO::P12100_ILO_CODE:R171

OCCUPATIONAL SAFETY AND HEALTH CONVENTION C155, 2003

Convention concerning Occupational Safety and Health and the Working Environment

PART I. SCOPE AND DEFINITIONS

Article 1

1. This Convention applies to all branches of economic activity.

PART II. PRINCIPLES OF NATIONAL POLICY

Article 4

1. Each Member shall, in the light of national conditions and practice, and in consultation with the most representative organisations of employers and workers, formulate, implement and periodically review a coherent national policy on occupational safety, occupational health and the working environment.

2. The aim of the policy shall be to prevent accidents and injury to health arising out of, linked with or occurring in the course of work, by minimising, so far as is reasonably practicable, the causes of hazards inherent in the working environment.

Article 5

The policy referred to in Article 4 of this Convention shall take account of the following main spheres of action in so far as they affect occupational safety and health and the working environment:

(a) design, testing, choice, substitution, installation, arrangement, use and maintenance of the material elements of work (workplaces, working environment, tools, machinery and equipment, chemical, physical and biological substances and agents, work processes);

(b) relationships between the material elements of work and the persons who carry out or supervise the work, and adaptation of machinery, equipment, working time, organisation of work and work processes to the physical and mental capacities of the workers;

(c) training, including necessary further training, qualifications and motivations of persons involved, in one capacity or another, in the achievement of adequate levels of safety and health;

(d) communication and co-operation at the levels of the working group and the undertaking and at all other appropriate levels up to and including the national level;

(e) the protection of workers and their representatives from disciplinary measures as a result of actions properly taken by them in conformity with the policy referred to in Article 4 of this Convention.

Article 7

The situation regarding occupational safety and health and the working environment shall be reviewed at appropriate intervals, either over-all or in respect of particular areas, with a view to identifying major problems, evolving effective methods for dealing with them and priorities of action, and evaluating results.

Article 9

1. The enforcement of laws and regulations concerning occupational safety and health and the working environment shall be secured by an adequate and appropriate system of inspection.

2. The enforcement system shall provide for adequate penalties for violations of the laws and regulations.

Article 12

Measures shall be taken, in accordance with national law and practice, with a view to ensuring that those who design, manufacture, import, provide or transfer machinery, equipment or substances for occupational use-

(a) satisfy themselves that, so far as is reasonably practicable, the machinery, equipment or substance does not entail dangers for the safety and health of those using it correctly;

(b) make available information concerning the correct installation and use of machinery and equipment and the correct use of substances, and information on hazards of machinery and equipment and dangerous properties of chemical substances and physical and biological agents or products, as well as instructions on how known hazards are to be avoided;

(c) undertake studies and research or otherwise keep abreast of the scientific and technical knowledge necessary to comply with subparagraphs (a) and (b) of this Article.

For the full text of this Convention go to the ILO website: http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0:NO:12100:P12100_ILO_CODE:C155

OCCUPATIONAL SAFETY AND HEALTH RECOMMENDATION R164, 2006

Recommendation concerning Occupational Safety and Health and the Working Environment

II. TECHNICAL FIELDS OF ACTION

3. As appropriate for different branches of economic activity and different types of work and taking into account the principle of giving priority to eliminating

hazards at their source, measures should be taken in pursuance of the policy referred to in Article 4 of the Convention, in particular in the following fields:

(a) design, siting, structural features, installation, maintenance, repair and alteration of workplaces and means of access thereto and egress therefrom;

(b) lighting, ventilation, order and cleanliness of workplaces;

(c) temperature, humidity and movement of air in the workplace;

(d) design, construction, use, maintenance, testing and inspection of machinery and equipment liable to present hazards and, as appropriate, their approval and transfer;

(e) prevention of harmful physical or mental stress due to conditions of work;

(f) handling, stacking and storage of loads and materials, manually or mechanically;

(g) use of electricity;

(h) manufacture, packing, labelling, transport, storage and use of dangerous substances and agents, disposal of their wastes and residues, and, as appropriate, their replacement by other substances or agents which are not dangerous or which are less dangerous;

(i) radiation protection;

(j) prevention and control of, and protection against, occupational hazards due to noise and vibration;

(k) control of the atmosphere and other ambient factors of workplaces;

(l) prevention and control of hazards due to high and low barometric pressures;

(m) prevention of fires and explosions and measures to be taken in case of fire or explosion;

(n) design, manufacture, supply, use, maintenance and testing of personal protective equipment and protective clothing;

(o) sanitary installations, washing facilities, facilities for changing and storing clothes, supply of drinking water, and any other welfare facilities connected with occupational safety and health;

(p) first-aid treatment;

(q) establishment of emergency plans;

(r) supervision of the health of workers.

IV. ACTION AT THE LEVEL OF THE UNDERTAKING

16. The arrangements provided for in Article 19 of the Convention should aim at ensuring that workers-

(a) take reasonable care for their own safety and that of other persons who may be affected by their acts or omissions at work;

(b) comply with instructions given for their own safety and health and those of others and with safety and health procedures;

(c) use safety devices and protective equipment correctly and do not render them inoperative;

(d) report forthwith to their immediate supervisor any situation which they have reason to believe could present a hazard and which they cannot themselves correct;

(e) report any accident or injury to health which arises in the course of or in connection with work.

17. No measures prejudicial to a worker should be taken by reference to the fact that, in good faith, he complained of what he considered to be a breach of statutory requirements or a serious inadequacy in the measures taken by the employer in respect of occupational safety and health and the working environment.

For the full text of this Recommendation go to the ILO website: http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312502

RADIATION PROTECTION CONVENTION C115, 1960

Convention concerning the Protection of Workers against Ionising Radiations

PART I. GENERAL PROVISIONS

Article 2

1. This Convention applies to all activities involving exposure of workers to ionising radiations in the course of their work.

PART II. PROTECTIVE MEASURES

Article 4

The activities referred to in Article 2 shall be so arranged and conducted as to afford the protection envisaged in this Part of the Convention.

Article 5

Every effort shall be made to restrict the exposure of workers to ionising radiations to the lowest practicable level, and any unnecessary exposure shall be avoided by all parties concerned.

Article 6

1. Maximum permissible doses of ionising radiations which may be received from sources external to or internal to the body and maximum permissible amounts of radioactive substances which can be taken into the body shall be fixed in accordance with Part I of this Convention for various categories of workers.

2. Such maximum permissible doses and amounts shall be kept under constant review in the light of current knowledge.

Article 7

1. Appropriate levels shall be fixed in accordance with Article 6 for workers who are directly engaged in radiation work and are-

(a) aged 18 and over;

(b) under the age of 18.

2. No worker under the age of 16 shall be engaged in work involving ionising radiations.

Article 9

1. Appropriate warnings shall be used to indicate the presence of hazards from ionising radiations. Any information necessary in this connection shall be supplied to the workers.

2. All workers directly engaged in radiation work shall be adequately instructed, before and during such employment, in the precautions to be taken for their protection, as regards their health and safety, and the reasons therefor.

Article 11

Appropriate monitoring of workers and places of work shall be carried out in order to measure the exposure of workers to ionising radiations and radioactive substances, with a view to ascertaining that the applicable levels are respected.

Article 12

All workers directly engaged in radiation work shall undergo an appropriate medical examination prior to or shortly after taking up such work and subsequently undergo further medical examinations at appropriate intervals.

For the full text of this Convention go to the ILO website: http://www.ilo.org/dyn/normlex/en/f?p=1000:12100:0::NO::P12100_ILO_CODE:C115

RADIATION PROTECTION RECOMMENDATION R114, 1960

Recommendation concerning the Protection of Workers against Ionising Radiations

I. GENERAL PROVISIONS

2. (1) This Recommendation applies to all activities involving exposure of workers to ionising radiations in the course of their work.

III. COMPETENT PERSON

6. The employer should appoint a competent person to deal on behalf of the undertaking with questions of protection against ionising radiations.

IV. METHODS OF PROTECTION

7. (1) In cases where they ensure effective protection preference should be given to methods of collective protection, both physical and operational.

(2) Wherever methods of collective protection are inadequate, personal protective equipment and, as necessary, appropriate protective procedures should be used.

8. (1) All protective devices, appliances and apparatus should be so designed or modified as to fulfil their intended purpose.

9. (1) Unsealed sources should be manipulated with due regard to their toxicity.

(2) The methods of manipulation should be chosen with a view to minimising the risk of entry of radioactive substances into the body and the spread of radioactive contamination.

10. Plans should be made in advance for measures-

(a) to detect as promptly as possible any leakage from, or breakage of, a sealed source of radioactive substances which may involve a risk of radioactive contamination and;

(b) to take prompt remedial action to prevent the further spread of radioactive contamination and to apply other appropriate safety precautions, including decontamination procedures, with, as necessary, the immediate collaboration of all authorities concerned.

11. Sources which may involve exposure of workers to ionising radiations, and the areas in which such an exposure may occur or where workers may be exposed to radioactive contamination, should be identified, in appropriate cases, by means of easily recognisable warnings.

12. All sources of radioactive substances, whether sealed or unsealed, in use or stored by an undertaking, should be appropriately recorded.

15. (2) If the loss, theft or damage is confirmed, the competent authority should be notified without delay.

V. MONITORING

17. (1) Appropriate monitoring of workers and places of work should be carried out in order to measure the exposure of workers to ionising radiations and radioactive substances, with a view to ascertaining that the applicable levels are respected.

19. Persons who carry out monitoring in pursuance of the provisions of the Radiation Protection Convention, 1960, and of this Recommendation, should be afforded adequate equipment and facilities for carrying out this work.

VI. MEDICAL EXAMINATIONS

20. All medical examinations referred to in the Radiation Protection Convention, 1960, should be carried out by a suitably qualified physician.

24. For all workers who undergo such medical examinations health records should be established and kept in accordance with the requirements of the competent authority.

VIII. CO-OPERATION OF EMPLOYERS AND WORKERS

32. Every effort should be made by both the employers and the workers to secure the closest co-operation in carrying out the measures for protection against ionising radiations.

For the full text of this Recommendation go to the ILO website: http://www.ilo.org/dyn/normlex/en/f?p=1000:12100:0::NO::P12100_ILO_CODE:R114

SAFETY AND HEALTH IN CONSTRUCTION CONVENTION C167, 1988

Convention concerning Safety and Health in Construction

I. SCOPE AND DEFINITIONS

Article 1

1. This Convention applies to all construction activities, namely building, civil engineering, and erection and dismantling work, including any process, operation or transport on a construction site, from the preparation of the site to the completion of the project.

Article 2

For the purpose of this Convention:

- (a) The term construction covers:
- (i) building, including excavation and the construction, structural alteration, renovation, repair, maintenance (including cleaning and painting) and demolition of all types of buildings or structures.
 - (ii) civil engineering, including excavation and the construction, structural alteration, repair, maintenance and demolition of, for example, airports, docks, harbours, inland waterways, dams, river and avalanche and sea defence works, roads and highways, railways, bridges, tunnels, viaducts and works related to the provision of services such as communications, drainage, sewerage, water and energy supplies;
 - (iii) the erection and dismantling of prefabricated buildings and structures, as well as the manufacturing of prefabricated elements on the construction site;
- (b) the term construction site means any site at which any of the processes or operations described in subparagraph (a) above are carried on.

II. GENERAL PROVISIONS

Article 9

Those concerned with the design and planning of a construction project shall take into account the safety and health of the construction workers in accordance with national laws, regulations and practice.

III. PREVENTIVE AND PROTECTIVE MEASURES

Article 13

Safety of workplaces

1. All appropriate precautions shall be taken to ensure that all workplaces are safe and without risk of injury to the safety and health of workers.
2. Safe means of access to and egress from all workplaces shall be provided and maintained, and indicated where appropriate.
3. All appropriate precautions shall be taken to protect persons present at or in the vicinity of a construction site from all risks which may arise from such site.

Article 14

Scaffolds and ladders

1. Where work cannot safely be done on or from the ground or from part of a building or other permanent structure, a safe and suitable scaffold shall be provided and maintained, or other equally safe and suitable provision shall be made.

Article 15

Lifting appliances and gear

1. Every lifting appliance and item of lifting gear, including their constituent elements, attachments, anchorages and supports, shall-
 - (a) be of good design and construction, sound material and adequate strength for the purpose for which they are used;
 - (b) be properly installed and used;
 - (c) be maintained in good working order;
 - (d) be examined and tested by a competent person at such times and in such cases as shall be prescribed by national laws or regulations; the results of these examinations and tests shall be recorded;
 - (e) be operated by workers who have received appropriate training in accordance with national laws and regulations.

Article 20

Cofferdams and caissons

1. Every cofferdam and caisson shall be-
 - (a) of good construction and suitable and sound material and of adequate strength;
 - (b) provided with adequate means for workers to reach safety in the event of an inrush of water or material.
2. The construction, positioning, modification or dismantling of a cofferdam or caisson shall take place only under the immediate supervision of a competent person.
3. Every cofferdam and caisson shall be inspected by a competent person at prescribed intervals.

Article 21

Work in compressed air

1. Work in compressed air shall be carried out only in accordance with measures prescribed by national laws or regulations.
2. Work in compressed air shall be carried out only by workers whose physical aptitude for such work has been established by a medical examination and when a competent person is present to supervise the conduct of the operations.

Article 30

Personal protective equipment and protective clothing

1. Where adequate protection against risk of accident or injury to health, including exposure to adverse conditions, cannot be ensured by other means, suitable personal protective equipment and protective clothing, having regard to the type of work and risks, shall be

provided and maintained by the employer, without cost to the workers, as may be prescribed by national laws or regulations.

2. The employer shall provide the workers with the appropriate means to enable them to use the individual protective equipment, and shall ensure its proper use.

3. Protective equipment and protective clothing shall comply with standards set by the competent authority taking into account as far as possible ergonomic principles.

4. Workers shall be required to make proper use of and to take good care of the personal protective equipment and protective clothing provided for their use.

Article 31

First-aid

The employer shall be responsible for ensuring that first-aid, including trained personnel, is available at all times. Arrangements shall be made for ensuring the removal for medical attention of workers who have suffered an accident or sudden illness.

Article 32

Welfare

1. At or within reasonable access of every construction site an adequate supply of wholesome drinking water shall be provided.

Article 33

Information and training

Workers shall be adequately and suitably-

(a) informed of potential safety and health hazards to which they may be exposed at their workplace;

(b) instructed and trained in the measures available for the prevention and control of, and protection against, those hazards.

For the full text of this Convention go to the ILO website: http://www.ilo.org/dyn/normlex/en/f?p=1000:12100:0::NO::P12100_ILO_CODE:C167

SAFETY AND HEALTH IN CONSTRUCTION RECOMMENDATION R175, 1988

Recommendation concerning Safety and Health in Construction

I. SCOPE AND DEFINITIONS

1. The provisions of the Safety and Health in Construction Convention, 1988, hereinafter referred to as the Convention and of this Recommendation should be applied in particular to:

(a) building, civil engineering and the erection and

dismantling of prefabricated buildings and structures, as defined in Article 2(a) of the Convention;

(b) the fabrication and erection of oil rigs, and of offshore installations while under construction on shore.

III. PREVENTIVE AND PROTECTIVE MEASURES

Scaffolds

16. Every scaffold and part thereof should be of suitable and sound material and of adequate size and strength for the purpose for which it is used and be maintained in a proper condition.

17. Every scaffold should be properly designed, erected and maintained so as to prevent collapse or accidental displacement when properly used.

Lifting appliances and lifting gear

22. National laws or regulations should prescribe the lifting appliances and items of lifting gear which should be examined and tested by a competent person-

(a) before being taken into use for the first time;

(b) after erection on a site;

(c) subsequently at intervals prescribed by such national laws or regulations;

(d) after any substantial alteration or repair.

Transport, earth-moving and materials-handling equipment

30. The drivers and operators of vehicles and of earth-moving or materials-handling equipment should be persons trained and tested as required by national laws or regulations.

Excavations, shafts, earthworks, underground works and tunnels

34. Shoring or other support for any part of an excavation, shaft, earthworks, underground works or tunnel should not be erected, altered or dismantled except under the supervision of a competent person.

Health hazards

41. (1) An information system should be set up by the competent authority, using the results of international scientific research, to provide information for architects, contractors, employers and workers' representatives on the health risks associated with hazardous substances used in the construction industry.

First-aid

49. The manner in which first-aid facilities and personnel are to be provided in pursuance of Article 31 of the Convention should be prescribed by national laws or regulations drawn up after consulting the competent health authority and the most representative organisa-

tions of employers and workers concerned.

Welfare

51. In appropriate cases, depending on the number of workers, the duration of the work and its location, adequate facilities for obtaining or preparing food and drink at or near a construction site should be provided, if they are not otherwise available.

For the full text of this Recommendation go to the ILO website: http://www.ilo.org/dyn/normlex/en/f?p=1000:12100:0::NO::P12100_ILO_CODE:R175

WELFARE FACILITIES RECOMMENDATION, R102, 1956

Recommendation concerning Welfare Facilities for Workers

I. SCOPE

1. This Recommendation applies to manual and non-manual workers employed in public or private undertakings, excluding workers in agriculture and sea transport.

III. FEEDING FACILITIES

A. Canteens

4. Canteens providing appropriate meals should be set up and operated in or near undertakings where this is desirable, having regard to the number of workers employed by the undertaking, the demand for and prospective use of the facilities, the non-availability of other appropriate facilities for obtaining meals and any other relevant conditions and circumstances.

B. Buffets and trolleys

10. (1) In undertakings where it is not practicable to set up canteens providing appropriate meals, and in other undertakings where such canteens already exist, buffets or trolleys should be provided, where necessary and practicable, for the sale to the workers of packed meals or snacks and tea, coffee, milk and other beverages. Trolleys should not, however, be introduced into workplaces in which dangerous or harmful processes make it undesirable that workers should partake of food and drink there.

(2) Some of these facilities should be made available not only during the midday or midshift interval but also during the recognised rest pauses and breaks.

C. Messrooms and other suitable rooms

11. (1) In undertakings where it is not practicable to set up canteens providing appropriate meals, and, where necessary, in other undertakings where such canteens already exist, messroom facilities should be provided,

where practicable and appropriate, for individual workers to prepare or heat and take meals provided by themselves.

D. Mobile canteens

12. In undertakings in which workers are dispersed over wide work areas, it is desirable, where practicable and necessary, and where other satisfactory facilities are not available, to provide mobile canteens for the sale of appropriate meals to the worker.

E. Other facilities

13. Special consideration should be given to providing shift workers with facilities for obtaining adequate meals and beverages at appropriate times.

F. Use of facilities

15. The workers should in no case be compelled, except as required by national laws and regulations for reasons of health, to use any of the feeding facilities provided.

IV. REST FACILITIES

A. Seats

16. (1) In undertakings where any workers, especially women and young workers, have in the course of their work reasonable opportunities for sitting without detriment to their work, seats should be provided and maintained for their use.

(2) Seats so provided should be in adequate numbers and reasonably near the work posts of the workers concerned.

B. Rest rooms

19. (1) In an undertaking where alternative facilities are not available for workers to take temporary rest during working hours, a rest room should be provided, where this is desirable, having regard to the nature of the work and any other relevant conditions and circumstances. In particular, rest rooms should be provided to meet the needs of women workers; of workers engaged on particularly arduous or special work requiring temporary rest during working hours; or of workers employed on broken shifts.

20. The facilities so provided should include at least-

(a) a room in which provision suited to the climate is made for relieving discomfort from cold or heat;

(b) adequate ventilation and lighting;

(c) suitable seating facilities in sufficient numbers.

For the full text of this Recommendation go to the ILO website: http://www.ilo.org/dyn/normlex/en/f?p=1000:12100:0::NO::P12100_ILO_CODE:R102

WORKING ENVIRONMENT (AIR, POLLUTION, NOISE AND VIBRATION) CONVENTION C148, 1977

Convention concerning the Protection of Workers against Occupational Hazards in the Working Environment Due to Air Pollution, Noise and Vibration

PART I. SCOPE AND DEFINITIONS

Article 2

1. Each Member, after consultation with the representative organisations of employers and workers, where such exist, may accept the obligations of this Convention separately in respect of-

- (a) air pollution;
- (b) noise; and
- (c) vibration.

Article 3

For the purpose of this Convention-

- (a) the term air pollution covers all air contaminated by substances, whatever their physical state, which are harmful to health or otherwise dangerous;
- (b) the term noise covers all sound which can result in hearing impairment or be harmful to health or otherwise dangerous;
- (c) the term vibration covers any vibration which is transmitted to the human body through solid structures and is harmful to health or otherwise dangerous.

PART III. PREVENTIVE AND PROTECTIVE MEASURE

Article 8

1. The competent authority shall establish criteria for determining the hazards of exposure to air pollution, noise and vibration in the working environment and, where appropriate, shall specify exposure limits on the basis of these criteria.

3. The criteria and exposure limits shall be established, supplemented and revised regularly in the light of current national and international knowledge and data, taking into account as far as possible any increase in occupational hazards resulting from simultaneous exposure to several harmful factors at the workplace.

Article 9

As far as possible, the working environment shall be kept free from any hazard due to air pollution, noise or vibration-

- (a) by technical measures applied to new plant or processes in design or installation, or added to existing

plant or processes; or, where this is not possible,

- (b) by supplementary organisational measures.

Article 10

Where the measures taken in pursuance of Article 9 do not bring air pollution, noise and vibration in the working environment within the limits specified in pursuance of Article 8, the employer shall provide and maintain suitable personal protective equipment. The employer shall not require a worker to work without the personal protective equipment provided in pursuance of this Article.

Article 13

All persons concerned shall be adequately and suitably-

- (a) informed of potential occupational hazards in the working environment due to air pollution, noise and vibration; and
- (b) instructed in the measures available for the prevention and control of, and protection against, those hazards.

For the full text of this Convention go to the ILO website: http://www.ilo.org/dyn/normlex/en/f?p=1000:12100:0::NO::P12100_ILO_CODE:C148

WORKING ENVIRONMENT (AIR, POLLUTION, NOISE AND VIBRATION) RECOMMENDATION R156, 1977

Recommendation concerning the Protection of Workers against Occupational Hazards in the Working Environment due to Air Pollution, Noise and Vibration

I. SCOPE

(2) Measures should be taken to give self-employed persons protection in the working environment analogous to that provided for in the Working Environment (Air Pollution, Noise and Vibration) Convention, 1977, and in this Recommendation.

II. PREVENTIVE AND PROTECTIVE MEASURES

(2) Special monitoring in relation to the exposure limits referred to in Article 8 of the Working Environment (Air Pollution, Noise and Vibration) Convention, 1977, should be undertaken in the working environment when machinery or installations are first put into use or significantly modified, or when new processes are introduced.

3. It should be the duty of the employer to arrange for equipment used to monitor air pollution, noise and vibration in the working environment to be regularly inspected, maintained and calibrated.

4. The workers and/or their representatives and the inspection services should be afforded access to the records of the monitoring of the working environment and

to the records of inspection, maintenance and calibration of apparatus and equipment used therefor.

5. Substances which are harmful to health or otherwise dangerous and which are liable to be airborne in the working environment should, as far as possible, be replaced by less harmful or harmless substances.

6. Processes involving air pollution, noise or vibration in the working environment as defined in Article 3 of the Working Environment (Air Pollution, Noise and Vibration) Convention, 1977, should be replaced as far as possible by processes involving less or no air pollution, noise or vibration.

III. SUPERVISION OF THE HEALTH OF WORKERS

16. (1) The supervision of the health of workers provided for in Article 11 of the Working Environment (Air Pollution, Noise and Vibration) Convention, 1977, should include, as determined by the competent authority-

- (a) a pre-assignment medical examination;
 - (b) periodic medical examinations at suitable intervals;
 - (c) biological or other tests or investigations which may be necessary to control the degree of exposure and supervise the state of health of the worker concerned;
 - (d) medical examinations or biological or other tests or investigations after cessation of the assignment which, when medically indicated, should be made available as of right on a regular basis and over a prolonged period.
- (2) The competent authority should require that the results of any such examinations or tests be made available to the worker, and at his request to his personal physician.

17. The supervision provided for in Paragraph 16 of this Recommendation should normally be carried out in working hours and should be free of cost to the worker.

IV. TRAINING, INFORMATION AND RESEARCH

23. Employers' and workers' organisations should take positive action to carry out programmes of training and information with respect to the prevention and control of, and protection against, existing and potential occupational hazards in the working environment due to air pollution, noise and vibration.

24. Workers' representatives within undertakings should have the facilities and necessary time, without loss of pay, to play an active role in respect of the prevention and control of, and the protection against, occupational hazards in the working environment due to air pollution, noise and vibration. For this purpose, they should have the right to seek assistance from recognised experts of their choice.

25. Such measures as are necessary should be taken to secure that, in connection with the use at a workplace of a substance liable to be harmful to health or otherwise dangerous, adequate information is available on-

- (a) the results of any relevant tests relating to the substance; and
- (b) the conditions required to ensure that, when properly used, it is without danger to the health of workers.

For the full text of this Recommendation go to the ILO website: http://www.ilo.org/dyn/normlex/en/f?p=1000:12100:0::NO::P12100_ILO_CODE:R156