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NOTE

From:	General Secretariat of the Council
То:	Permanent Representatives Committee
Subject:	Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive 2009/148/EC on the protection of workers from the risks related to exposure to asbestos at work
	- Analysis of the final compromise text with a view to agreement

Delegations will find attached the provisional agreement on the above proposal, subject to the agreement by the Committee of Permanent Representatives, with a view to reaching a first-reading agreement with the European Parliament.

Changes compared to the Commission's proposal are marked in **bold** and deletions in [...].

The lawyer-linguists are expected to carry out the legal-linguist revision of the document.

2022/0298 (COD)

Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

amending Directive 2009/148/EC on the protection of workers from the risks related to exposure to asbestos at work

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 153(2), point (b), in conjunction with paragraph 1, point (a), thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee¹,

Having regard to the opinion of the Committee of the Regions,

Acting in accordance with the ordinary legislative procedure²,

¹ OJ C 56, 16.2.2021, p. 63.

² Position of the European Parliament of XXXXX (not yet published in the Official Journal) and Decision of the Council of XXXXX.

Whereas:

- (1) Directive 2009/148/EC of the European Parliament and the Council³ aims to protect workers against risks to their health and safety from exposure to asbestos at the place of work. A consistent level of protection from the risks related to the occupational exposure to asbestos is provided for in that Directive by a framework of general principles to enable Member States to ensure the consistent application of minimum requirements. The aim of these minimum requirements is to protect workers at Union level, while more stringent provisions can be set by Member States.
- (2) The provisions of this Directive should apply without prejudice to [...] provisions of Directive 2004/37/EC of the European Parliament and of the Council⁴ that are more favourable to workers with regard to health and safety at work.

³ Directive 2009/148/EC of the European Parliament and of the Council of 30 November 2009 on the protection of workers from the risks related to exposure to asbestos at work (Text with EEA relevance)OJ L 330, 16.12.2009, p. 28.

⁴ Directive 2004/37/EC of the European Parliament and of the Council of 29 April 2004 on the protection of workers from the risks related to exposure to carcinogens, mutagens or reprotoxic substances at work (Sixth individual Directive within the meaning of Article 16(1) of Council Directive 89/391/EEC) (OJ L 158, 30.4.2004, p. 50).

- (3) Asbestos is a highly dangerous carcinogenic agent, still affecting different economic sectors, such as building and renovation, mining and quarrying, waste management and firefighting, where workers are at high risk of being exposed. Asbestos fibres are classified as carcinogens *category* 1A according to Regulation (EC) 1272/2008 of the European Parliament and of the Council ⁵and are by far the major cause of work-related cancer, with as much as 78 % of occupational cancers recognised in the Member States as being related to exposure to asbestos. When inhaled, airborne asbestos fibres can lead to serious diseases such as mesothelioma and lung cancer, and the first signs of disease may take an average of 30 years to manifest from the moment of exposure, ultimately leading to work-related deaths. This Directive applies to all activities, including construction, renovation and demolition work, waste management, mining and firefighting, during which workers are or may be exposed in the course of their work to dust arising from asbestos or asbestos-containing materials.
- (3a) In line with the Health in all Policies approach, the protection of workers' health from exposure to asbestos has a cross-cutting dimension and is relevant to numerous Union policies and activities, in particular in the field of the environment, where Union action is to contribute, among others, to the protection of human health. The Union also has an important role to play at the international level to lead by an example as regards the prevention of asbestos related diseases and to work with other international organisations and third countries to achieve a global ban of asbestos. In addition, this Directive applies in synergy with other Union initiatives.

⁵ Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance)OJ L 353, 31.12.2008, p. 1.

- *(3b)* There are types of exposure to asbestos that do not result from active handling of asbestos, such as exposure, named passive, which concerns workers who work either in the vicinity of someone working on asbestos-containing materials, or in premises where asbestos-containing materials are degrading in the structure of buildings and exposure, named secondary, which concerns people exposed to asbestos fibres brought home by occupationally exposed individuals mostly from their clothing or hair, both of which can have significant impacts on health. Although all forms of asbestos have been banned in the European Union, asbestos is still present in some structures, particularly buildings, built before the ban, which may lead to both occupational and non-occupational exposure if asbestos-containing material in the building is disturbed or damaged. Avoiding asbestos exposure, in whatever form, therefore remains an imperative. In the context of passive exposure of workers to asbestos, Council Directive 89/391/EEC and Directive 2009/148/EC require employers to be in possession of an assessment of all the risks to the safety and health of workers in their place of work by identifying potential hazards, including those stemming from passive exposure to asbestos, and to put in place the necessary preventive and protective measures to protect workers' health and safety, with risk avoidance being always the primary measure to implement. The occupational health and safety requirements provided for in this Directive are important means to avoid secondary exposure to asbestos or asbestos-containing materials.
- (3c) Women are particularly at risk of certain types of asbestos exposure, including secondary exposure. The gender distribution of activities in the workplace constitutes a risk factor for the monitoring, diagnosis, treatment and recognition of asbestos-related diseases. It is therefore essential to take into account gender differences in exposure and complications in order to better prevent and detect diseases caused by asbestos exposure.

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- (4) Following the new scientific and technological developments in the area, there is scope to improve the protection of workers exposed to asbestos and thus to reduce the probability of workers contracting asbestos-related diseases. For asbestos, being a non-threshold carcinogen, it is not scientifically possible to identify levels below which exposure would not lead to adverse health effects. Instead, an exposure-risk relationship (ERR) can be derived, facilitating the setting of an occupational exposure limit ('OEL') by taking into account an acceptable level of excess risk. As a consequence, the OEL *and measurement methodology* for asbestos should be revised in order to reduce the risk by lowering exposure levels *to improve workers protection from work related asbestos diseases*.
- (4a) The waiver for sporadic and low intensity exposure provided for in this Directive should not apply to a non-threshold carcinogen such as asbestos with regard to requirements relating to registering exposure and the medical surveillance of workers laid down in this Directive.

(5) The Europe's Beating Cancer Plan⁶ supports the need for action in the field of protection of workers against carcinogenic substances. Improved protection of workers exposed to asbestos will also be important in the context of the green transition and the implementation of the European Green Deal, including in particular the renovation wave for Europe⁷. Citizens' recommendations in the framework of the Conference on the Future of Europe⁸ also highlighted the importance of fair working conditions, in particular the revision of Directive 2009/148/EC.

⁶ https://ec.europa.eu/health/system/files/2022-02/eu_cancer-plan_en_0.pdf

⁷ Renovation Wave: doubling the renovation rate to cut emissions, boost recovery and reduce energy poverty, COM(2020) 662 final

⁸ Conference on the Future of Europe. Report on the final outcome (May 2022). https://prod-cofe-platform.s3.eu-central-1.amazonaws.com/8pl7jfzc6ae3jy2doji28fni27a3?response-contentdisposition=inline%3B%20filename%3D%22CoFE_Report_with_annexes_EN.pdf%2 2%3B%20filename%2A%3DUTF-8%27%27CoFE_Report_with_annexes_EN.pdf&response-contenttype=application%2Fpdf&X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIA3LJJXGZPDFYVOW5V%2F20220917%2Feu-central-1%2Fs3%2Faws4_request&X-Amz-Date=20220917T104038Z&X-Amz-Expires=300&X-Amz-SignedHeaders=host&X-Amz-Signature=6806caf5fd75a86ad4e907b934b2194de4c3c0c756a8d2a34c5e8b68985ffbd e

- (5a) Within the Framework of the Union's Renovation Wave for Europe initiative, the goal of which is to decarbonise buildings, tackle energy poverty and boost the Union's sovereignty by means of energy efficiency, it is essential that safe removal and disposal of asbestos-containing materials is a priority, because repair, maintenance, encapsulation or sealing can lead to the postponement of removal, which can, in turn, perpetuate the risks of workers' exposure. Therefore, employers should, when assessing whether any activity involves or is likely to involve a risk of exposure to asbestos or material containing asbestos, consider the total removal of asbestos as a preferred option over any other handling activity, whenever this is feasible and beneficial to the workers' protection. In addition, workers who are or are likely to be exposed to asbestos urgently need to be trained. In order to ensure minimum requirements for high quality training, an Annex to Directive 2009/148/EC should provide for minimum training requirements, including specific requirements, for workers in specialised asbestos removal undertakings.
- (6) A binding occupational exposure limit value for asbestos, which must not be exceeded, is an important component of the general arrangements for the protection of workers established by Directive 2009/148/EC, in addition to the appropriate risk management measures (RMMs) and to the provision of adequate respiratory and other personal protective equipment.
- (7) The limit value for asbestos set out in Directive 2009/148/EC should be revised in the light of the Commission's evaluations and recent scientific evidence and technical data. *Strengthened preventive and protective measures are needed to implement that revised limit value* in all Member States.

- (8) A revised limit value should be set out in this Directive in light of available information, including up-to-date scientific evidence *on health effects* and technical data, based on a thorough assessment of the socioeconomic impact and availability of exposure measurement protocols and techniques at the place of work. That information should be based on opinions of the Committee for Risk Assessment (RAC) of the European Chemicals Agency (ECHA), established by Regulation (EC) No 1907/2006 *of the European Parliament and of the Council*⁹ and opinions of the Advisory Committee on Safety and Health at Work (ACSH) established by a Council Decision of 22 July 2003¹⁰.
- (9) Current available technologies for measuring asbestos fibres do not allow for measurements at very low concentrations when thin fibres are counted. Thus, in order to ensure a high level of protection of workers' health while duly considering feasibility of measurement, when using such techniques, a choice whether to count thin fibres or to consider a low concentration limit should be made. Some Member States have opted for a lower limit value without counting thinner fibres, while others have opted for a higher limit value considering thin fibres. With a view to guarantee a balanced approach, different OELs should be established allowing either for the counting of fibres with a breadth lower than 0.2 μm starting from the moment of technological transition to electron microscopy or for the counting of fibres with a breadth between 0.2 and 3 μm.

⁹ Regulation (EC) n° 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending directive 1999/45/EC and repealing Council Regulation (EEC) n° 793/93 and Commission Regulation (EC) n° 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (OJ L 396, 30.12.2006, p. 1).

¹⁰ Council Decision of 22 July 2003 setting up an Advisory Committee on Safety and Health at Work (OJ C 218, 13.9.2003, p. 1).

- (9a) Taking into account the relevant scientific expertise and a balanced approach ensuring at the same time adequate protection of workers at Union level, revised OELs should be established, which depending on the fibre counting method used in the concrete Member State, should be equal to 0.002 fibres/cm³, when measuring fibres with a breadth between 0.2 and 3 μm, or 0,01 fibres/cm³, when measuring also fibres with a breadth lower than 0.2 μm, as an 8-hour time-weighted average (TWA).
- (10) The Commission has carried out a two-stage consultation of management and labour at Union level in accordance with Article 154 of the Treaty. It has also consulted the ACSH, which has adopted an opinion providing also information for the successful implementation of the revised OEL options. The European Parliament adopted a resolution¹¹ calling for a proposal to update Directive 2009/148/EC in order to strengthen Union measures for protecting workers from the threat of asbestos.

¹¹ European Parliament resolution of 20 October 2021 with recommendations to the Commission on protecting workers from asbestos (2019/2182(INL)) (OJ C 184, 5.5.2022, p. 45.).

- (11) Optical microscopy, although it does not allow a counting of the *thinnest* fibres detrimental to health, is currently the most used method for the regular measuring of asbestos. As it is possible to measure an OEL equal to 0,01 fibres/cm³ with phase-contrast microscope (PCM), no *transitional* period is needed for the implementation of *that* OEL. In line with the opinion of the ACSH, a more modern and sensitive methodology based on electron microscopy or any other method giving equivalent or more accurate results should be used, while taking into account the need for an adequate period of *technical* adaptation and for a higher coherence among different methodologies currently applied within the Union. In order to allow for sufficient time to comply with the new requirements related to fibre measurement, it is appropriate that a longer transposition period of 6 years for such measures is provided. The Commission is well placed to support and facilitate Member States in such replacement, in particular through the development of guidelines.
- (11a) Measuring asbestos fibres in the air using analytical methods based on electron microscopy (EM) will constitute a significant improvement as regards the monitoring of asbestos as it will allow for the counting of thinner fibres. The transition to this more sensitive methodology could result in identifying several times the numbers of fibres detectable with phase contrast microscopy (PCM). Member States and employers will need time to gain experience with the fibre counting carried out by EM, implement improved preventative measures and collect new exposure data resulting from the combined application of the OEL and the EM measuring method. This experience will be of importance in order to pave the way for assessing the feasibility of a further reduction of the OELs.

- (11b) Asbestos sampling should be representative of the worker's personal exposure to asbestos. Samples should therefore be taken at regular intervals during specific operational phases in representative and realistic situations in which workers are exposed to asbestos dust.
- (12) Taking into account the exposure minimisation requirements set out in Directive 2009/148/EC [...] and Directive 2004/37/EC [...], employers should ensure that the risk related to the exposure of workers to asbestos at the place of work is reduced to a minimum and in any case to as low a level as is technically possible.
- (13) Special control measures and precautions *including by using state-of-the art technologies* are needed for workers exposed or likely to be exposed to *lower the concentration of* asbestos *fibres in the air to as low a level as is technically possible below the limit value, through measures* such as *suction of dust at the source and cleaning and maintenance of the premises. For work under confinement, specific measures for the protection of workers are needed, such as dust suppression, fresh air supply and the use of HEPA filters.* Subjecting workers to a decontamination procedure and *strengthening the* related training *requirements are important elements* in order to significantly contribute to reducing the risks related to such exposure.
- (14) Preventive measures for the protection of the health of workers exposed to asbestos and the commitment envisaged for Member States with regard to the surveillance of their health are important, in particular the continuation of health surveillance after the end of exposure. *The annex to Directive 2009/148/EC related to the medical surveillance of workers should be updated in light of current knowledge on diseases that can be caused by asbestos exposure. It is important that the annex is revised regularly to reflect the evolution of scientific knowledge.*

- (14a) A notification system is important in order to enable the responsible authorities of Member States to supervise works during which asbestos may be disturbed and allow, where appropriate, the intervention of the responsible authority to ensure the protection of workers involved.
- (15)Employers should take all necessary steps to identify presumed asbestos-containing materials, if appropriate by obtaining information from the owners of the premises as well as other sources of information, including relevant registers. [...] If such information is not available, the employer should ensure an examination by a qualified operator in accordance with national law and practices of the occurrence of asbestos-containing material and obtain the result of such examination before the start of the work. On the basis of the information received, the employer should record, before the start of any asbestos removal project, demolition, maintenance or renovation, information relating to the presence or presumed presence of asbestos in buildings, ships, aircrafts or other installations that were built before the entry into force of the national asbestos ban. It is important that employers communicate that information to workers who may be exposed to asbestos as a result of its use, of maintenance or of other activities. The identification of asbestos-containing materials should not replace the necessity for the employer to undertake a risk assessment as provided for in this Directive.

- (15a) Directive 2009/148/EC should be regularly updated to take into account the latest scientific knowledge and technical developments including an assessment of different types of asbestos fibres and their adverse health effects. In the context of the next evaluation in accordance with Article 22 of Directive 2009/148/EC, the Commission should assess the need to extend the scope of Directive 2009/148/EC, and in particular whether to include erionite, riebeckite, winchite, richterite and fluoro-edenite, as well as the need for additional measures to ensure protection against secondary exposure to asbestos on the workplace. The Commission should submit a report to the European Parliament and to the Council, setting out the results of its assessment following the consultation of the social partners, accompanied, if appropriate, by a legislative proposal to amend Directive 2009/148/EC accordingly.
- (15b) There is a need to provide sufficient and focused technical support to help employers, in particular small and medium-sized enterprises, implement this Directive.
- (15c) Before carrying out demolition or asbestos removal work, undertakings should obtain from national authorities permits that are renewable in accordance with national law and practice.

- (15d) Firefighters and emergency services personnel are at risk of being exposed to asbestos in the course of their work. It is therefore important that the employers of these workers assess, in accordance with the provisions of this Directive, the risk of workers of being exposed to asbestos and take the necessary measures to protect their health and safety. In order to support employers in taking such measures, it is important that the Commission develop guidelines, which take into account the specificities of those workers activities and the information relating to the risks of their exposure. Such guidelines should build on best practices available in the Member States and on consultation with relevant stakeholders. A more systematic exchange of best practices across Member States should also be established for that purpose.
- (15e) It is important that the Commission, in cooperation with the ACSH, develop and issue guidelines no later than [insert two years from entry into force of this Directive], in order to support the implementation of this Directive. Those guidelines should, where appropriate, include sector-specific solutions. Such guidelines should also include indications for employers on how to prioritise removal of asbestos or material containing asbestos over other forms of asbestos handling when assessing the risk of exposure to asbestos or asbestos containing materials. Those guidelines should be reviewed every five years after issuing in light, in particular, of technological and scientific developments on asbestos identification, measurement and warning technology, if appropriate.

- (15f) Russia's war of aggression against Ukraine is not only causing suffering for the Ukrainian people but also considerable damage to infrastructure, housing and the built environment more generally. As Ukraine did not ban the use of asbestos until 2017, the forthcoming reconstruction of the country poses a significant risk to workers, particularly those that handle rubble. It is important that employers appropriately consider the risks for workers to asbestos exposure when carrying out rebuilding activities in third countries.
- (15g) In view of the upcoming increase in thermal renovations of buildings, there is a crucial need to support research and development in order to ensure the highest possible level of protection for workers that are or may be exposed to asbestos.
- (16) Since the objective of this Directive, namely to protect workers against risks to their health and safety arising from or likely to arise from exposure to asbestos at work, including the prevention of such risks, cannot be sufficiently achieved by the Member States, but can rather, by reason of its scale and effects, be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary in order to achieve that objective.
- (17) Since this Directive concerns the protection of the health and safety of workers at the place of work, it should be transposed within two years of the date of its entry into force.
- (18) Directive 2009/148/EC should therefore be amended accordingly,

HAVE ADOPTED THIS DIRECTIVE:

Article 1

Amendments to Directive 2009/148/EC

Directive 2009/148/EC is amended as follows:

(1) in Article 1(1), the following third subparagraph is added:

'The provisions of Directive 2004/37/EC of the European Parliament and of the Council* shall apply whenever they are more favourable to health and safety of workers at work.

* Directive 2004/37 of the European Parliament and of the Council of 29 April 2004 on the protection of workers from the risks related to exposure to carcinogens, mutagens or reprotoxic substances at work (Sixth individual directive within the meaning of Article 16(1) of Council Directive 89/391/EEC (OJ L 158, 30.04.2004, p. 50), as last amended by Directive (EU) 2022/431 of the European Parliament and of the Council of 9 March 2022 (OJ L 88, 16.3.2022, p. 1.).';

(2) Article 2 is replaced by the following:

'Article 2

For the purposes of this Directive, 'asbestos' means the following fibrous silicates, which are classified as carcinogens 1A according to Regulation (EC) 1272/2008^{*}:

- (a) asbestos, actinolite, CAS** 77536-66-4;
- (b) asbestos, amosite (grunerite), CAS 12172-73-5;
- (c) asbestos, anthophyllite, CAS 77536-67-5;
- (d) asbestos, chrysotile, CAS 12001-29-5;
- (e) asbestos, crocidolite, CAS 12001-28-4;
- (f) asbestos, tremolite, CAS 77536-68-6.
- * Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (OJ L 353, 31.12.2008, p. 1–1355).

** CAS: Chemical Abstract Service Number.';

(2a) in Article 3, paragraph 2 is replaced by the following:

'In the case of any activity likely to involve a risk of exposure to dust arising from asbestos or *material* containing asbestos, this risk must be assessed in such a way as *both* to determine the nature and degree of the workers' exposure to dust arising from asbestos or materials containing asbestos *and to prioritise removal of asbestos or material containing asbestos over other forms of asbestos handling*.';

(2b) in Article 3, the introductory part of paragraph 3 is replaced by the following:

'3. Provided that worker exposure is sporadic and of low intensity, and if it is clear from the results of the risk assessment referred to in paragraph 2 that the exposure limit for asbestos will not be exceeded in the air of the working area, *Article 4* may be waived where the work involves:';

(2c) in Article 4(3), the second subparagraph is replaced by the following:

'The notification *shall* include at least a brief description of:

(a) the location of the worksite *and*, *where relevant*, *the specific areas in which the work is to be carried out*;

(b) the type and quantities of asbestos used or handled;

(c) the activities and processes involved, *including for protection and decontamination of workers, for waste disposal and, where relevant, for air exchange in work under confinement*;

(d) the number of workers involved, a list of the workers likely to be assigned to the site and their individual training certificates as well as the date of the latest assessment of the workers' health in accordance with Article 18;

(e) the starting date and duration of the work;

(f) measures taken, *including an overview of the equipment used* to limit the exposure of workers to asbestos.

Member States shall ensure that the responsible authorities keep the information referred to in point (d), in accordance with national law, for no longer than what is necessary for the purposes ensuring that workers that perform asbestos related work are properly trained, having due regard to the long-term effects of asbestos to workers' health.'; (3) Article 6 is replaced by the following:

'Article 6

For all activities referred to in Article 3(1), the exposure of workers to dust arising from asbestos or materials containing asbestos at the place of work shall be reduced to a minimum and in any case to as low a level as is technically possible below the limit value laid down in Article 8, in particular through the following measures:

- (a) the number of workers exposed or likely to be exposed to dust arising from asbestos or materials containing asbestos shall be limited to the lowest possible figure;
- (b) work processes shall be designed so as not to produce asbestos dust or, if that proves impossible, to avoid the release of asbestos dust into the air *by taking measures such as:*
 - (i) asbestos dust suppression;
 - (ii) the suction of asbestos dust at source;
 - (iii) the continuous sedimentation of asbestos fibres suspended in the air;
- (ba) workers shall be subject to an appropriate decontamination procedure;
- (bb) for work carried out under confinement, adequate protection shall be ensured;

- (c) all premises and equipment involved in the treatment of asbestos shall be capable of being regularly and effectively cleaned and maintained *and subject to regular cleaning and maintenance*;
- (d) asbestos or dust-generating asbestos-containing material shall be stored and transported in suitable sealed packing;
- (e) waste shall be collected and removed from the place of work as soon as possible in suitable sealed packing with labels indicating that it contains asbestos; this measure shall not apply to mining activities; such waste shall then be dealt with in accordance with Directive 2008/98/EC of the European Parliament and of the Council*.

* Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (OJ L 312, 22.11.2008, p. 3).';

(3a) in Article 7, paragraph 1 is replaced by the following:

'1. Depending on the results of the initial risk assessment, and in order to ensure compliance with the limit value laid down in Article 8, measurement of asbestos fibres in the air at the workplace shall be carried out *at regular intervals during specific operational phases*.';

(3b) in Article 7, paragraph 2 is replaced by the following:

'2. Sampling *shall* be representative of the personal exposure of the worker to dust arising from asbestos or materials containing asbestos.';

(3c) in Article 7, paragraph 5 is replaced by the following:

'5. The duration of sampling *shall* be such that representative exposure can be established for an 8-hour reference period (one shift) by means of measurements or time-weighted calculations.';

(4) [...] Article 7(6) [...] is replaced by the following:

'Fibre counting shall be carried out by *electron microscopy (EM) or by* any other *alternative technology* giving equivalent or *more accurate results*.

6a. For the *purposes* of measuring asbestos in the air, as referred to in paragraph 1, only fibres with a length of more than 5 micrometres, a breadth of less than 3 micrometres and a length/breadth ratio greater than 3:1 shall be taken into consideration.

By ... [6 years after the date of entry into force], in addition to the first subparagraph, for the purposes of Article 8(2)(a), fibres with a breadth lower than 0.2 micrometres shall also be taken into consideration.';

[...]

(5) Article 8 is replaced by the following:

'Article 8

1. Until [insert date: 6 years after the date of entry into force], employers shall ensure that no worker is exposed to an airborne concentration of asbestos in excess of 0,01 fibres per cm^3 as an 8-hour time-weighted average (TWA).

2. By [insert date: 6 years after the date of entry into force], employers shall ensure that no worker is exposed to an airborne concentration of asbestos in excess of either

a. 0,01 fibres per cm³ as an 8-hour time-weighted average (TWA) in accordance with Article 7(6a), second subparagraph;

or

b. 0,002 fibres per cm³ as an 8-hour time-weighted average (TWA).

3. Members States shall ensure that employers are subject to at least one of the occupational limit values set out in paragraph 2.';

(5a) in Article 10, paragraph 1 is replaced by the following:

'1. Where the limit value laid down in Article 8 is exceeded, or if there is reason to believe that asbestos-containing materials which are not identified prior to the work have been disturbed so as to generate dust, work shall stop immediately.

Work shall not be continued in the affected area until adequate measures have been taken for the protection of the workers concerned. *Where the limit value is exceeded, the reasons for the limit being exceeded shall be identified and appropriate measures to remedy the situation shall be taken as soon as possible.*';

(5b) in Article 10, paragraph 3 is replaced by the following:

'3. Where exposure cannot be reduced by other means and where compliance with the limit value makes necessary the wearing of individual protective breathing equipment, this may not be permanent and shall be kept to the strict minimum necessary for each worker. During periods of work which require the use of such equipment, provision shall be made for *regular* breaks appropriate to the physical and climatological conditions and, where relevant, in consultation with the workers and/or their representatives within the undertaking or establishment, in accordance with national laws and practice.';

(6) in Article 11, the first subparagraph is replaced by the following:

'Before beginning demolition, maintenance work or renovation works on premises built before the entry into force of the national asbestos ban, employers shall take, notably by obtaining information from the owners of the premises or from other employers as well as from other sources of information, including relevant registers, all necessary steps to identify presumed asbestoscontaining materials. If such information is not available, the employer shall ensure an examination by a qualified operator in accordance with national law and practices of the occurrence of asbestos-containing material and obtain the result of such examination before the start of the work. The employer shall make available to another employer, upon request and solely for the purpose of complying with the obligation laid down in the first subparagraph, any information obtained in the performance of the aforementioned examination.';

(6a) in Article 12(1), the introductory part and point (a) are replaced by the following:

'In the case of certain activities such as demolition, asbestos removal work, repairing and maintenance, in respect of which it is foreseeable that the limit value set out in Article 8 will be exceeded despite the use of *all possible* technical preventive measures for limiting asbestos in air concentrations, the employer shall determine the measures intended to ensure protection of the workers while they are engaged in such activities, in particular the following:

(a) workers shall be issued with suitable *personal protective equipment that shall be worn*. Personal protective equipment *shall be appropriately handled and, as regards notably respiratory equipment, individually adjusted, including through fitting checks, in accordance with Directive 89/656/EEC*;';

(6b) in Article 12(1), point (c) is replaced by the following:

'(c) the spread of dust arising from asbestos or materials containing asbestos outside the premises or site of action shall be prevented, *and for work performed under confinement, the enclosure shall be airtight and under mechanical extraction ventilation*.';

(6c) in Article 13(2), point (c) is replaced by the following:

'(c) when the asbestos demolition or removal work has been completed, the absence of asbestos exposure risks in the workplace shall be verified in compliance with national laws and practice *before other activities resume*.';

(6d) in Article 14, paragraph 2 is replaced by the following:

'2. The content of the training *shall* be easily understandable for workers. It *shall* enable them to acquire the necessary knowledge and skills in terms of prevention and safety, *in accordance with the national law and practice applicable where the work takes place*.';

(6e) in Article 14, paragraph 3 is replaced by the following:

`3. The minimum requirements with regard to the content, duration, intervals and documentation of the training provided pursuant to this Article are set out in Annex Ia.;

(6f) in Article 15, paragraph 1 is replaced by the following:

'1. Undertakings which intend to carry out demolition or asbestos removal work shall obtain a permit from the competent authority before the start of the work. For that purpose, they shall provide that competent authority with at least proof of compliance with Article 6 and certificates indicating the completion of training in accordance with Article 14 and Annex Ia.';

(6g) in Article 15, the following paragraph is added:

'1a. Member States shall make the list of companies having obtained a permit pursuant to paragraph 1 publicly available, in accordance with national law and practice.';

(6h) in Article 16(1), the introductory part is replaced by the following:

'1. In the case of all activities referred to in Article 3(1), and subject to Article 3(3), appropriate measures shall be taken to ensure that:;

(6i) in Article 17(2), the introductory part is replaced by the following:

'2. In addition to the measures referred to in paragraph 1, and subject to Article 3(3), appropriate measures shall be taken to ensure that:';

(6j) in Article 18, paragraph 1 is deleted;

(6k) the following article is inserted:

Article 18ba

The Commission shall assess in the context of the next evaluation in accordance with Article 22 of this Directive the need to update the list of fibrous silicates in the light of scientific knowledge as well as for additional measures to ensure protection against secondary exposure to asbestos in the workplace.

Following the evaluation referred to in paragraph 1 and after consulting the ACSH, the Commission shall evaluate the appropriateness and need for updating the list of fibrous silicates, in particular whether it would be appropriate to include additional fibrous silicates such as erionite, riebeckite, winchite, richterite and fluoro-edenite within the scope of this Directive as well as to adopt additional measures to ensure protection against secondary exposure to asbestos in the workplace. The Commission shall, where appropriate, present legislative proposals in this regard.';

[...]

(7) in Article 19, paragraph 2 is replaced by the following:

'The employer shall enter the information on the workers engaged in the activities referred to in Article 3(1) in a register. That information shall indicate the nature and duration of the activity and the exposure to which they have been subjected. The doctor and/or the authority responsible for medical surveillance shall have access to this register. Each worker shall have access to the results in the register which relate to him or her personally. The workers and/or their representatives shall have access to anonymous, collective information in the register.';

(7a) in Article 21, paragraph 1 is replaced by the following:"

'1. Member States shall keep a register of all cases of medically diagnosed asbestos-related occupational diseases. An indicative list of diseases that can be caused by asbestos exposure is set out in Annex I.';

[...]

Article 22a

1. In accordance with Article 22, the Commission shall assess, no later than 2028, the feasibility of a further lowering of the limit values on the basis of the national implementation reports submitted by Member States, the availability of scientific evidence, technical developments and the relationship between new analytical methods and the numerical value of the OEL.

2. The Commission shall provide appropriate technical support to employers fulfilling the requirements of this Directive, and information on the relevant Union funds with a view to assist Member States with making the best use of, and facilitating access to, those funds, notably for SMEs and microenterprises.';

(7c) in Annex I, point 1 is replaced by the following:

'1. Current knowledge indicates that exposure to free asbestos fibres can give rise to *at least* the following diseases:

- asbestosis,
- mesothelioma,
- *lung* carcinoma,
- gastro-intestinal carcinoma,
- carcinoma of the larynx,
- carcinoma of the ovary,
- *non-malignant pleural diseases.*';

(7d) the following annex is inserted:

'ANNEX Ia

Minimum requirements for training

Workers who are, or who are likely to be, exposed to dust from asbestos or asbestos-containing materials shall receive mandatory training, encompassing at least the following minimum requirements:

1. The training shall be provided at the start of an employment relationship and when additional training needs are identified.

2. The length of the training shall be adequate in relation to the tasks of the workers concerned.

3. The training shall be provided by an instructor whose qualification is recognised in accordance with national law and practice.

4. Every worker who has attended training in a satisfactory manner shall receive a training certificate indicating all of the following:

- (a) the date of the training;
- (b) the duration of the training;
- (c) the content of the training;
- (d) the language of the training;

(e) the name, qualification, and contact details of the instructor or the institution providing the training, or both.

5. Workers who are, or are likely to be, exposed to dust from asbestos or asbestos-containing materials shall receive at least theoretical and practical training concerning the following:

(a) the applicable law of the Member State in which the work is carried out;

- (b) the properties of asbestos and its effects on health, including the
- synergistic effect of smoking;

(c) the types of products or materials likely to contain asbestos;

(d) the operations that could result in asbestos exposure and the importance of preventive controls to minimise exposure;

(e) safe working practices, controls and protective equipment

f) the appropriate role, choice, selection, limitations and proper use of protective equipment, with particular regard to respiratory equipment;

(g) emergency procedures;

(h) decontamination procedures;

- (i) waste disposal;
- (j) medical surveillance requirements.

The training shall be adapted as closely as possible to the characteristics of the profession and the specific tasks and work methods that the profession involves.

6. Workers who engage in demolition or asbestos-removal work shall be required to receive training, in addition to the training provided for pursuant to paragraph 5, regarding the use of technological equipment and machines to contain the release and spreading of asbestos fibres during the work processes, in accordance with this Directive.';

Article 2

Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by [OJ : please insert two years after the date of entry into force of this Directive] [...] at the latest. They shall immediately communicate the text of those measures to the Commission.

When Member States adopt *the* measures *referred to in paragraphs 1 and 1a*, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

- 1.a Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with Article 1, point 4 of this Directive by [OJ: please insert 6 years after the date of entry into force of this Directive] at the latest. They shall immediately communicate the text of those measures to the Commission. Member States shall, before having brought into force the laws, regulations and administrative provisions in accordance with this paragraph, carry out fibre counting wherever possible by phase-contrast microscopy (PCM), in accordance with the method recommended in 1997 by the World Health Organisation, or by any other method giving equivalent or more accurate results.
- 2. Member States shall communicate to the Commission the text of the main measures of national law which they adopt in the field covered by this Directive.

Article 3

This Directive shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union* [...].

Article 4

This Directive is addressed to the Member States.

Done at Brussels,

For the European Parliament

For the Council

The President

The President