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COUNCIL DIRECTIVE
of 19 March 1987
on the prevention and reduction of environmental pollution by asbestos

(87/217/EEC)

(OJ L 85, 28.3.1987, p. 40)

Amended by:

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►**M1**	Council Directive 91/692/EEC of 23 December 1991	L 377	48	31.12.1991
►**M2**	Council Regulation (EC) No 807/2003 of 14 April 2003	L 122	36	16.5.2003

Amended by:

►**A1**	Act of Accession of Austria, Sweden and Finland	C 241	21	29.8.1994
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COUNCIL DIRECTIVE

of 19 March 1987

on the prevention and reduction of environmental pollution by asbestos

(87/217/EEC)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Articles 100 and 235 thereof,

Having regard to the proposal from the Commission ([1]),

Having regard to the opinion of the European Parliament ([2]),

Having regard to the opinion of the Economic and Social Committee ([3]),

Whereas successive action programmes of the European Communities ([4]) on the environment emphasize the importance of preventing and reducing environmental pollution; whereas in this context asbestos has been listed among the first-category pollutants to be investigated on the grounds of their toxicity and of their potentially serious effects on human health and the environment;

Whereas Council Directive 83/478/EEC ([5]) inserted in Directive 76/769/EEC ([6]), as last amended by Directive 85/467/EEC ([7]), provisions restricting the marketing and use of crocidolite (blue asbestos) and products containing crocidolite fibres and special provisions concerning the labelling of products containing asbestos;

Whereas Council Directive 83/477/EEC ([8]) lays down provisions on the protection of workers from the risks related to exposure to asbestos at work;

Whereas Directive 84/360/EEC ([9]), lays down provisions on the combating of air pollution from industrial plants;

Whereas Member States should take the measures necessary to ensure that asbestos emissions into the air, asbestos discharges into the aquatic environment, and solid asbestos waste are, as far as possible, reduced at source or prevented;

Whereas it is appropriate to allow a sufficient period of time for the application of these measures to existing plants;

Whereas Member States should have the possibility, whilst respecting the provisions of the Treaty, to introduce more stringent provisions in order to protect health and the environment;

Whereas disparities between the provisions in force or being amended in the Member States as regards the control of pollution from industrial plants can create unequal conditions of competition and thereby directly affect the functioning of the common market; whereas it is therefore necessary to approximate legislation in this field pursuant to Article 100 of the Treaty;

Whereas reducing pollution by asbestos serves to further one of the Community's objectives regarding the protection and improvement of the environment; whereas, however, specific powers for this purpose

([1]) OJ No C 349, 31. 12. 1985, p. 27.
([2]) Opinion delivered on 9. 3. 1987 (not yet published in the official Journal).
([3]) OJ No C 207, 18. 8. 1986, p. 21.
([4]) OJ No C 112, 20. 12. 1973, p. 1, OJ No C 139, 13. 6. 1977, p. 1 and OJ No C 46, 17. 2. 1983, p. 1.
([5]) OJ No L 263, 24. 9. 1983, p. 33.
([6]) OJ No L 262, 27. 9. 1976, p. 201.
([7]) OJ No L 269, 11. 10. 1985, p. 56.
([8]) OJ No L 263, 24. 9. 1983, p. 25.
([9]) OJ No L 188, 16. 7. 1984, p. 20.

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are not expressly provided for in the Treaty and Article 235 must therefore also be invoked,

HAS ADOPTED THIS DIRECTIVE:

Article 1

1. The objective of this Directive is to lay down measures and to supplement provisions already in force, with a view to preventing and reducing pollution by asbestos in the interests of the protection of human health and the environment.

2. This Directive shall be applied without prejudice to the provisions laid down by Directive 83/477/EEC.

Article 2

For the purpose of this Directive:

1. *Asbestos* means the following fibrous silicates:
   - — crocidolite (blue asbestos),
   - — actinolite,
   - — anthophyllite,
   - — chrysotile (white asbestos),
   - — amosite (brown asbestos),
   - — tremolite.
2. *Raw asbestos* means:

   the product resulting from the primary crushing of asbestos ore.
3. *Use of asbestos* means:

   activities which involve the handling of a quantity of more than 100 kilograms of raw asbestos per year and which concern:

   (a) the production of raw asbestos ore excluding any process directly associated with the mining of the ore, and/or

   (b) the manufacturing and industrial finishing of the following products using raw asbestos: asbestos cement or asbestos-cement products, asbestos friction products, asbestos filters, asbestos textiles, asbestos paper and card, asbestos jointing, packaging and reinforcement materials, asbestos floor coverings, asbestos fillers.
4. *Working of products containing asbestos* means:

   activities other than the use of asbestos, which are liable to release asbestos into the environment.
5. *Waste* means:

   any substance or object as defined in Article 1 of Directive 75/442/EEC ([1]).

Article 3

1. Member States shall take the measures necessary to ensure that asbestos emissions into the air, asbestos discharges into the aquatic environment, and solid asbestos waste are, as far as reasonably practicable, reduced at source and prevented. In the case of the use of asbestos, these measures should entail using the best available technology not entailing excessive cost, including where appropriate recycling or treatment.

2. In the case of existing plants, the requirement in paragraph 1 that best available technology not entailing excessive costs be used to reduce and eliminate emissions of asbestos into the air shall be applied taking into account the elements set out in Article 13 of Directive 84/360/EEC.

([1]) OJ No L 194, 25. 7. 1975, p. 47.

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Article 4

1. Without prejudice to Article 3, Member States shall take the measures necessary to ensure that the concentration of asbestos emitted through the discharge ducts into the air during use of asbestos does not exceed a limit value of 0,1 mg/m^3 (milligrams of abestos (SIC! asbestos) per m^3 of air discharged).

2. Member States may exempt from the obligation referred to in paragraph 1 the plants emitting less than 5 000 m^3/hour total gaseous discharges, where the discharge of asbestos into the air is not more than 0,5 grams per hour at any time under normal operating conditions.

When this exemption applies, the competent authorities of Member States shall take appropriate measures in order to ensure that the thresholds referred to in the first subparagraph are not exceeded.

Article 5

Member States shall take the measures necessary to ensure that:

(a) all aqueous effluent arising in the manufacture of asbestos cement is recycled. Where such recycling is not ecoomically (SIC! economically) feasible, Member States shall take the measures necessary to ensure that the disposal of liquid waste containing asbestos does not result in pollution of the aquatic environment and other sectors including the air.

To this end:

— the limit value of 30 grams of total suspended matter per m^3 of aqueous effluent discharged shall apply,

— the competent authorities of Member States shall, for each plant concerned, specify the volume of discharges into water of the total quantity of suspended matter discharged per tonne of product taking account of the specific situation of the plant.

These limits shall apply at the point where the waste waters leave the industrial plant.

(b) All aqueous effluent arising in the manufacture of asbestos paper or board is recycled.

However, the discharge of aqueous effluent containing not more than 30 grams of suspended matter per m^3 of water may be authorized during routine cleaning or maintenance of the plant.

Article 6

1. Member States shall take the measures necessary to ensure that measurements are taken at regular intervals of emissions into the air and of discharges of aqueous effluent from facilities to which the limit values provided for in Articles 4 and 5 apply.

2. For the purposes of checking compliance with the said limit values the sampling and analysis procedures and methods shall be in conformity with those described in the Annex or with any other procedure or method which gives equivalent results.

3. Member States shall notify to the Commission the procedures and methods they are using together with the information relevant to assess the pertinence of such procedures and methods. On the basis of this information, the Commission will keep under review the equivalence of the different procedures and methods and report to the Council five years after notification of the Directive.

Article 7

Member States shall take the measures necessary to ensure that:

— activities involving the working of products containing asbestos do not cause significant environmental pollution by asbestos fibres or dust,

— the demolition of buildings, structures and installations containing asbestos and the removal therefrom of asbestos or materials

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containing asbestos involving the release of asbestos fibres or dust do not cause significant asbestos environmental pollution; to that end they shall satisfy themselves that the plan of work provided for in Article 12 of Directive 83/477/EEC prescribes the introduction of all the necessary preventive measures to this end.

Article 8

Without prejudice to Directive 78/319/EEC ([1]), as last amended by the 1985 Act of Accession, Member States shall take the measures necessary to ensure that:

— in the course of the transport and deposition of waste containing asbestos fibres or dust, no such fibres or dust are released into the air and no liquids which may contain asbestos fibres are spilled,

— where waste containing asbestos fibres or dust is landfilled at sites licensed for the purpose, such waste is so treated, packaged or covered, with account being taken of local conditions, that the release of asbestos particles into the environment is prevented.

Article 9

A Member State may, in order to protect health and the environment, introduce provisions which are more stringent than those of this Directive, in compliance with the conditions laid down by the Treaty.

Article 10

The procedure provided for in Articles 11 and 12 is established for the adaptation of the Annex to technical progress and shall be followed for any modification of the methods of sampling and analysis mentioned in the Annex. This adaptation must not result in any direct or indirect modification of the limit values indicated in Articles 4 and 5.

Article 11

A Committee for the adaptation of this Directive to scientific and technical progress, hereinafter called 'the Committee', consisting of representatives of the Member States and chaired by a representative of the Commission, is hereby set up.

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Article 12

1. The Commission shall be assisted by the Commitee for the adaptation of this Directive to scientific and technical progress.

2. Where reference is made to this Article, Articles 5 and 7 of Decision 1999/468/EC ([2]) shall apply.

The period laid down in Article 5(6) of Decision 1999/468/EC shall be set at three months.

3. The commitee shall adopt its rules of procedure.

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Article 13

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1. At intervals of three years the Member States shall send information to the Commission on the implementation of this Directive, in the form of a sectoral report which shall also cover other pertinent Community Directives. This report shall be drawn up on the basis of a questionnaire or outline drafted by the Commission in accordance with the procedure laid down in Article 6 of Directive 91/692/EEC ([3]). The questionnaire or outline shall be sent to the Member States six

([1]) OJ No L 84, 31. 3. 1978, p. 43.
([2]) OJ L 184, 17.7.1999, p. 23.
([3]) OJ No L 377, 31. 12. 1991, p. 48.

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months before the start of the period covered by the report. The report shall be sent to the Commission within nine months of the end of the three-year period covered by it.

The first report shall cover the period from 1994 to 1996 inclusive.

The Commission shall publish a Community report on the implementation of the Directive within nine months of receiving the reports from the Member States.

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2. Where necessary, in the light of the evolution of knowledge in the medical field and that of technological progress, the Commission shall submit further proposals aimed at preventing and reducing pollution by asbestos in the interests of the protection of human health and the environment.

Article 14

1. Subject to paragraph 2, Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive not later than 31 December 1988. They shall forthwith inform the Commission thereof.

2. Member States shall adopt and publish the provisions necessary to comply with Articles 4 and 5 as soon as possible and in any case not later than 30 June 1991 for plants built or authorized before the date given in paragraph 1.

3. Member States shall communicate to the Commission the texts of the provisions of national law which they adopt in the field governed by this Directive.

Article 15

This Directive is addressd to the Member States.

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ANNEX

METHODS OF SAMPLING AND ANALYSES

A. DISCHARGE OF AQUEOUS EFFLUENT

The reference method of analysis to determine total suspended matter (filterable matter from the non precipitated (SIC! non-precipitated) sample) as expressed in mg/l shall be filtering through a 0,45 μm filter membrane, drying at 105 ºC and weighing ([1]).

Samples must be taken in such a way as to be representative of the discharge over a 24-hour period.

This determination must be conducted to a precision ([2]) of ± 5 % and an accuracy ([2]) of ± 10 %.

B. SPECIFICATIONS TO BE MET WHEN SELECTING A METHOD FOR MEASURING EMISSIONS INTO THE AIR

I. **Gravimetric method**

1. The method selected shall be a gravimetric method which is capable of measuring the total quantities of dust emitted through the discharge ducts.

   Account shall be taken of the concentration of asbestos in dust. When concentration measurements are required, the concentration of asbestos in dust shall be measured or evaluated. The controlling authority shall decide on the periodicity of such measure, according to the characteristics of the plant and of its production, but this should be initially at least every six months. If a Member State has established that the concentration does not display any significant variation, the frequency of measurement may be reduced. Where periodical measures are not taken, the limit value specified in Article 4 of the Directive applies to the total dust emissions.

   Sampling shall be conducted before any dilution of the flow to be measured.

2. The sampling must be conducted to a precision of ± 40 % and an accuracy of ± 20 % at the limit value. The limit of detection must be 20 %. At least two measurements under the same conditions shall be made in order to check the compliance with the limit value.

3. *Operation of the installation*

   Measurements shall only be valid if sampling takes place while the installation is operating normally.

4. *Selecting the sampling point*

   Sampling shall take place at a point where there is a laminar flow of air. As far as possible, care shall be taken to avoid turbulence, and obstacles which might disrupt the flow of air.

5. *Modifications required for sampling*

   Suitable apertures shall be made in ducts where sampling is to take place and proper platforms shall be provided.

6. *Measurements to be taken before sampling*

   Before sampling commences, it is first necessary to measure air temperature and pressure and the velocity of flow in the duct. Air temperature and pressure shall normally be measured along the sampling line at normal flow rates. Under exceptional conditions, it is also necessary to measure the water vapour concentration so that the results can be amended accordingly.

7. *General requirements of the sampling procedure*

   The procedure requires a sample of air from a duct carrying the emissions of asbestos dust to be drawn through a filter, and the asbestos content of the dust retained in the filter to be measured.

7.1. The sampling line shall first be checked to ensure that it is airtight and that there are no leaks which might give rise to measurement errors.

([1]) See Annex III to Directive 82/833/EEC(OJ No L 378, 31. 12. 1982, p. 1).
([2]) These items are defined in Article 2 of Directive 79/869/EEC (OJ No L 271, 29. 10. 1979, p. 44) as amended by Directive 81/855/EEC (OJ No L 319, 7. 11. 1981, p. 16).

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The sampler head shall be carefully sealed off and the sampler pump started up. The rate of leakage shall not exceed 1 % of the normal sampling flow.

7.2. Normally sampling shall be conducted under isokinetic conditions.

7.3. Duration of sampling shall depend on the type of process being monitored and the sampling line used and the sampling period shall be sufficient to ensure that an adequate quantity of material is collected for weighing. It shall be representative of the full process being monitored.

7.4. When the sampler filter is not in the immediate proximity of the sampler head, it is essential to recover materials deposited in the sampling probe.

7.5. The sampler head and the number of points where samples must be taken shall be determined in accordance with the national standard adopted.

8. *Nature of the sampler filter*

8.1. The filter appropriate to the technique of analysis used shall be chosen. For the gravimetric method, glassfibre filters are preferable.

8.2. A minimum filtration efficiency of 99 % is required, as defined with reference to the DOP test using an aerosol with particles of 0,3 μm diameter

9. *Weighing*

9.1. An appropriate high precision balance shall be used.

9.2. In order to achieve the accuracy required for weighing it is essential to condition filters thoroughly before and after sampling.

10. *Expression of results*

In addition to measurement data, results shall record temperature, pressure and flow data and shall include all relevant information, such as a simple diagram showing the location of sampling points, the dimensions of ducts, the volumes sampled and the method of calculation used to obtain the results. These results shall be expressed at normal temperature (273 K) and pressure (101,3 kPa).

II. **Countable fibres method**

Where fibre counting procedures are used for the purpose of checking compliance with the limit value in Article 4 of the Directive, subject to the provisions of Article 6 (3) of the Directive, a conversion factor of two fibres/ml to 0,1 mg/m^3 of asbestos dust may be used.

For the purposes of the Directive a fibre is defined as any object of length greater than 5 μm, breadth less than 3 μm, and having a length/breadth ratio greater than 3/1, which is countable by phase contrast optical microscopy using the European reference method defined in Annex I of Directive 83/477/EEC.

A fibre counting method shall meet the following specifications:

1. The method shall be capable of measuring the concentration of countable fibres in the emitted gases.

The controlling authority shall decide on the periodicity of such measures, according to the characteristics of the plant and of its production, but this should be at least every six months. Where periodical measures are not taken, the limit value specified in Article 4 applies to the total dust emission.

Sampling shall be conducted before any dilution of the flow to be measured.

2. *Operation of the installation*

Measurement shall only be valid if sampling takes place while the installation is operating normally.

3. *Selecting the sampling point*

Sampling shall take place at a point where there is a laminar flow of air. As far as possible, care shall be taken to avoid turbulence and obstacles which might disrupt the flow of air.

4. *Modifications required for sampling*

Suitable apertures shall be made in ducts where sampling is to take place, and proper platforms shall be provided.

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5. *Measurements to be taken before sampling*

Before sampling commences, it is first necessary to measure air temperature and pressure, and the velocity of flow in the duct. Air temperature and pressure shall normally be measured along the sampling line at normal flow rates. Under exceptional conditions, it is also necessary to measure the water vapour concentration so that the results can be amended accordingly.

6. *General requirements of the sampling procedure*

The procedure requires a sample of air from a duct carrying the emissions of asbestos dust to be drawn through a filter, and the countable asbestos fibres in the dust retained on the filter to be measured.

6.1. The sampling line shall first be checked to ensure that it is airtight, and that there are no leaks which might give rise to measurement errors. The sampling head shall be carefully sealed off and the sampling pump started up. The rate of leakage shall not exceed 1 % of the normal sampling flow.

6.2. Sampling of the emitted gases shall be conducted inside the emission duct under isokinetic conditions.

6.3. Duration of sampling shall depend on the type of process being monitored and the size of the sampling nozzle used. The sampling period shall be sufficient to ensure that the sample collection filter carries between 100-600 countable asbestos fibres/mm^2. It shall be representative of the full process being monitored.

6.4. The sampling head and the number of points where samples must be taken shall be determined in accordance with the national standard adopted.

7. *Nature of the sampling collection filter*

7.1. The filter appropriate to the technique of measurement shall be chosen. For the countable fibre method, membrane filters (mixed esters of cellulose or cellulose nitrate) of nominal pore size 5 μm, with printed squares and a diameter of 25 mm shall be used.

7.2. The sample collection filter shall have a minimum filtration efficiency of 99 % with respect to countable asbestos fibres.

8. *Counting of fibres*

The fibre counting method shall conform to the European reference method, as set out in Annex I of Directive 83/477/EEC.

9. *Expression of results*

In addition to measurement data, results shall record temperature, pressure and flow data and shall include all relevant information, such as a simple diagram showing the location of sampling points, the dimensions of ducts, the volumes sampled and the market of calculation used to obtain the results. These results shall be expressed at normal temperature (273 K) and pressure (101,3 kPa).