COMMISSION OF THE EUROPEAN COMMUNITIES

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PROPOSAL FOR A SECOND COUNCIL DIRECTIVE
ON THE PROTECTION OF WORKERS FROM THE RISKS RELATED
TO EXPOSURE TO AGENTS AT WORK : ASBESTOS

(presented by the Commission to the Council)

PROPOSAL FOR A SECOND COUNCIL DIRECTIVE ON THE PROTECTION OF WORKERS FROM THE RISKS RELATED TO EXPOSURE TO AGENTS AT WORK : ASBESTOS

EXPLANATORY MEMORANDUM

1. General observations on the Proposal for a Directive

Asbestos is the focus of attention from public opinion and from the various authorities in the Member States. This has been reflected by the actions already undertaken by the Member States, by the debate and approval of a resolution on the health hazards of asbestos by the European Parliament and by study of the Economic and Social Committee on health and environmental hazards arising from the use of asbestos.

The Commission has also published a report on the "Public Health Risks of Exposure to Asbestos" (EUR 5653 e) which contains a critical analysis of the available bibliography on asbestos as it relates to public health.

Asbestos has been widely used because of its unique properties: tensile strength, resistence to degradation, in particular by abrasion and by chemicals, fineness of incombustible fibres, and thermic and electrical insulation qualities. It is employed in various ways, in many industries. The main fields of application are the building, construction, engineering, shipbuilding and automobile industries. The major use of asbestos fibres is in a mixture with cement which is utilized for construction purposes and for pipes.

The consumption of asbestos in the Member States has been estimated at over 800,000 metric tons per year, the great majority of which is imported, since within the Member States the mining of asbestos (chrysotile) occurs only in Italy.

Man's exposure to asbestos can occur in several ways, but the main exposures to asbestos are work related and para-work related.

Work related exposure is either direct, such as from work in asbestos mines, factories, etc. or indirect, such as from work in the vicinity of asbestos contaminated work situations.

Para-work related exposure results from either domestic exposure of members of households, as a result of exposure to asbestos contaminated clothing of asbestos workers, or exposure through leisure time activities, such as results from the use of "do it yourself" asbestos containing products.

The principal mode of entry of asbestos into the humain body is through inhalation and a potential health risk exists from exposure to fine asbestos fibres of inhalable geometric dimensions (diameter smaller than 3 μ) in the air.

Health effects usually occur after long exposures, but relatively short term exposures may cause disease, in particular certain tumours.

The following diseases have been shown to be related to exposure to asbestos:

- Asbestosis. This is a progressive lung fibrosis which in general only appears after massive and prolonged exposure. However a shorter exposure of only a few years can result in asbestosis.
- Bronchial carcinomas. An excess incidence of bronchial carcinomas has been established in relationship with asbestos exposure. Cigarette smoking is a highly contributive factor. Work related exposure need not necessarily be of long duration, but a high intensity usually has occurred.
- Mesotheliomas. The majority, but not all, pleural mesotheliomas are work related or para-work related to past exposure to asbestos. There is general agreement that the risk of pleural mesotheliomas is fibre related in the order crocidolite $\rangle$ amosite $\rangle$ chrysotile $\rangle$ anthophylite but the magnitude of the difference between, for example, crocidolite and chrysotile is not well established. Peritoneal mesotheliomas are probably only related to rather intensive work exposure.

- Laryngeal carcinomas. Certain of these tumours may be related to high level exposure to asbestos but a causal relationship is not proven.
- Gastrointestinal carcinomas. Some studies have shown an increased prevalence of carcinoma of stomach, colon, rectum, and oesophagus in exposed workers.

At the present time only a few systematic studies regarding the presence of asbestos in lung tissues have been conducted in the European Community, and therefore the results of measurements of asbestos in tissues cannot be directly related to exposure levels. It is therefore impossible to present quantitative exposure/effect relationships.

However the available evidence suggests that in the case of mesothelioma the exposure may be short and probably of lower concentration than that required to produce asbestosis or bronchial carcinomas, but the long latent period for induction of mesotheliomas means that they are a late effect of exposure to asbestos.

Asbestos is thus a dangerous agent for which regulations regarding occupational exposure have existed for a long time in most Member States. These regulations cover a number of industrial circumstances and include in certain cases exposure limits for the control of asbestosis, based on semi-quantitative exposure effect relationships from short term, high level exposures.

There are considerable disparities between the legislation in Member States with respect to the extent of the coverage and also with respect to the significance which is attached to the exposure limits.

This proposal is therefore aimed at removing these disparities and it will increase the protection of workers against occupational risks due to asbestos by improving the means and conditions of work, knowledge and human attitudes.

It is based on the Council Resolution of 29 June 1978 on an Action Programme of the European Communities on Safety and Health at Work (1) and on the Council Directive of ..... on the protection of workers from exposure to chemical, physical and biological agents at work (2) which provides for an Individual Directive on asbestos. It is the second such Directive.

One of the general objectives of the Action Programme on Safety and Health at Work is that exposure to occupational risks must be kept as low as possible. To monitor more effectively the application of preventive measures, surveillance of health and working conditions must be intensified, notably in line with the exigencies of occupational medicine, hygiene and safety appropriate to present day conditions.

This action programme provides for the establishment of exposure limits for asbestos, sampling requirements and measuring methods, and satisfactory conditions at the workplace.

The Council Directive on the protection of workers from exposure to chemical, physical and biological agents at work already requires Member States to ensure that as regards asbestos appropriate surveillance of the state of health of workers is carried out during the period of exposure, and that workers and/or their representatives at work have access to appropriate information on its danger.

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(1) OJ No. C 165 of 11.7.1978

(2) OJ No. .....

Asbestos is also one of the agents for which the following complementary measures are foreseen:

1. providing medical surveillance of workers prior to exposure and thereafter at regular intervals. In special cases, it shall be ensured that a suitable form of health surveillance is available to workers who have been exposed to the agent, after exposure has ceased;

2. access by workers and/or their representatives at the place of work to the results of exposure measurements and to the anonymous collective results of the biological tests indicating exposure when such tests are provided for;

3. access by each worker concerned to the results of his own biological tests indicating exposure;

4. informing workers and/or their representatives at the place of work where the limit values referred to in Article 4 are exceeded, of the causes thereof and of the measures taken or to be taken in order to rectify the situation;

5. access by workers and/or their representatives at the place of work to appropriate information to improve their knowledge of the dangers to which they are exposed.

2. Observations on certain specific aspects of the Proposal for a Directive.

Article 2 gives the definition of asbestos and the Chemical Abstract number relevant to each of the fibrous silicates.

Article 3 sets out the field of application of this Directive.

Article 4 contains three important provisions, all of which have been called for in the resolution of the European Parliament, and in the study of the Economic and Social Committee.

Article 4.1 propose that as safer and suitable substitutes become available, the use of asbestos should be phased out.

Article 4.2 bans the use of asbestos for spraying (flocking and painting).

Article 4.3 is concerned with reducing the use of crocidolite to a minimum, since this is the most harmful form of asbestos and accounts for only 3.2% of the asbestos mined around the world.

Crocidolite may continue to be used if its use is authorised by the responsible authority of the Member State, but on a year to year basis. The information for this authorisation is given in the Annex.

Article 5 deals with a notification scheme for the use in industry of asbestos fibres, other than crocidolite. This notification scheme is to be run by the responsible authority of the Member State, and the information to be submitted in such a notification is based on the Annex. This article also makes provision for a new notification to be made if there is an important change in the use of asbestos.

Article 6 contains a number of provisionswhich are aimed at preventing the release of free asbestos fibres into the air at work:

Indent one is consistent with the study of the Economic and Social Committee and deals with engineering control at source, and the provision of closed systems to prevent the release of asbestos fibres into the general work atmosphere.

Indent two is primarily directed towards preventing the uncontrolled use of compressed air to clean brake linings, in particular those of motor vehicles.

Indent three is consistent with the proposal in the study of the Economic and Social Committee when it called for "suitable packaging of asbestos designed to rule out all losses".

Indent four bans the direct handling of raw asbestos by workers, unless it is impracticable to do so, as may be the case in asbestos mines.

Indent five is a general provision requiring all buildings, plant and equipement to be adequately designed and installed, but also to be regularly cleaned and maintained.

Indent six requires measures to be taken so that the removal of asbestos from and the demolition of, existing buildings, plants, structures and installations containing asbestos is performed as safely as possible.

Article 7. requires that the work areas in which asbestos is being used are clearly defined, that the number of workers exposed are limited to those who have to work in these areas, and that there is no smoking. The latter provision is called for in the resolution of the European Parliament, and the dangers of smoking are referred to in the study of the Economic and Social Committee.

Article 8. concerns the minimum requirements for the sampling and analysis of asbestos in air to ensure that there is uniform compliance with the limit values laid down in Article 9 for:

1) crocidolite
2) fibres other than crocidolite

The need to establish the lowest possible limit values and the lower limit for crocidolite in view of its greater danger, has been recognised by the European Parliament and the Economic and Social Committee.

Article 10 gives technical rules relating to the assessment of levels of asbestos in air in relation to the limit values.

Articles 11 and 12 concern the steps to be taken when the limit values are exceeded. Article 11 relates to the technical measures to be taken whereas Article 12 relates primarily to the measures to protect workers. It should be noted that Article 11 takes into account the study of the Economic and Social Committee which states that "when a limit is not, or cannot be adhered to, all work has to cease in the area concerned".

Article 13 requires that the employer keep a list of all his workers, as well as information relating to sampling and analysis. It details the records which have to be kept and maintained up to date by the doctor responsible for the health surveillance. This article is consistent with the study of the Economic and Social Committee.

Article 15 details the requirements for the surveillance of the state of health of workers in line with Article 3.2 of the Council Directive ..... on the protection of workers from exposure to chemical, physical and biological agents at work, and the complementary measures referred to in Article 5 of the same Directive.

Article 16 concerns the availability and wearing of protective clothing, the need for special washing facilities, and the precautions to be taken to prevent the spread of pollution by asbestos outside the workplace in line with Article 6 of the Council Directive..... on the protection of workers from exposure to chemical, physical and biological agents at work.

Article 17 requires workers to be adequately trained, and details the information to be made available to the workers and/or their representatives at work in line with Articles 3.2 and 5 of the Council Directive of ..... on the protection of workers from exposure to chemical, physical and biological agents at work. This is also consistent with the resolution of the European Parliament and the study of the Economic and Social Committee.

Article 18 is consistent with the views of the European Parliament and the Economic and Social Committee and concerns the collection of statistics by the Member States. Article 18.1 relates to workers' sickness absences of over three days, due to asbestos, and Article 18.2 relates to the keeping of a register of asbestos related diseases such as asbestosis and mesothelioma.

Article 19. sets out some of the means to facilitate the implementation of the Directive and deals with the information collected.

3. Consultation of the European Parliament and the Economic and Social Committee.

Under the terms of Article 100 of the Treaty establishing the European Economic Community, the opinion of these two institutions must be sought.

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The Council of the European Communities,

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

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Parliament,

Having regard to the Opinion of the Economic and Social Committee,

After consulting the Advisory Committee on Safety, Hygiene and Health Protection at Work,

After consulting the Safety and Health Commission for the mining and other extractive industries,

Whereas the Council Resolution of 29 June 1978 on an Action Programme of the European Communities on Safety and Health at work (1) provides for the establishment of specific harmonized procedures regarding the protection of workers with respect to asbestos; whereas the urgent need to harmonize laws in this field is recognized;

Whereas asbestos is a dangerous agent found in a large number of circumstances at work and many workers are exposed to a potential health risk; whereas crocidolite is considered as the most dangerous type of asbestos;

Whereas a reduction of exposure to asbestos will reduce the risk of developing asbestos-related disease;

Whereas asbestos is one of the agents to which the provisions of Council Directive .../.../EEC on the protection of workers from exposure to chemical, physical and biological agents at work (2) apply; whereas Article 8 of that Directive provides that individual Directives shall lay down limit values and other specific requirements for those agents listed in Annex 1 to that Directive, which includes asbestos;

Whereas the same Directive provides for the setting up of a Technical Committee whose task is limited to the technical aspects listed in Annex III to that Directive, and which are detailed in the individual Directives;

HAS ADOPTED THIS DIRECTIVE

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(1) OJ No. C 165 of 11.7.1978
(2) OJ No. .....

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Article 1

1. This is the second individual Directive pursuant to Article 8 of Directive .../.../EEC.

2. The aim of this Directive is the protection of workers against risks to their health and safety, including the prevention of such risks arising or likely to arise at work from exposure to asbestos, by laying down limit values and other specific requirements.

Article 2

For the purpose of this Directive, asbestos means any of the following fibrous silicates:

Actinolite, CAS number 13768-00-8
Amosite, CAS number 12172-73-5
Anthophyllite, CAS number 17068-78-9
Chrysotile, CAS number 12001-29-5
Crocidolite, CAS number 12001-28-4
Tremolite, CAS number 14567-73-8

or any mixture containing any one or more of the foregoing.

Article 3

This Directive shall apply to workers exposed to asbestos at work, including those exposed where asbestos is extracted, manipulated, treated, transformed, loaded, unloaded, applied, removed or demolished, and exposed to any other process which involves the manufacture of articles comprised wholly or partly of asbestos.

Article 4

1. Asbestos shall be replaced by suitable and safer substitutes when these are available.

2. The spraying of asbestos shall be prohibited.

3. Whenever possible the use of crocidolite shall be avoided and all measures shall be taken to reduce the amounts of crocidolite used at work to a minimum.

When the use of crocidolite is unavoidable the responsible authority of the Member State may authorize its use on a year to year basis and shall inform the Commission. The information to be submitted by an applicant for such authorization is given in the Annex. Such Annex shall be supplemented and adapted in line with technical progress in accordance with the procedure set out in Article 10 of Directive .../.../EEC.

Guidelines to assist the responsible authority of the Member State in granting authorizations shall also be drawn up and adapted in line with technical progress in accordance with the procedure set out in Article 10 of Directive .../.../EEC.

Article 5

The manufacturing, processing, storage and disposal of asbestos, other than crocidolite, shall be the subject of a notification system run by the relevant authority of the Member State. Workers and their representatives in undertakings or establishments shall have access to the notification concerning their own undertaking or establishment.

The information to be submitted by the notifier is given in paragraphs 1, 2, 3, 4 and 5 of the Annex. This information shall be supplemented and adapted in line with technical progress in accordance with the procedure set out in Article 10 of Directive ../.../EEC.

If in relation to the original notification, an important change in the use of asbestos occurs, then a new notification shall be made.

Article 6

The entry of asbestos into the air at work shall be reduced to the minimum that is reasonably practicable. The measures to be taken shall include the following:

- asbestos shall be captured where released, and closed systems shall be provided where technically feasible;
- the removal of asbestos emanating from friction linings or pads shall be carried out by suitable procedures;
- when not in use, asbestos as a raw material shall be kept and transported in suitable closed containers;
- the manual handling of asbestos as a raw material shall be prohibited unless the circumstances of the case make such prohibition not reasonably practicable; this may be the case in asbestos mines;
- all buildings and/or plant or equipment involved in the manufacture or processing of asbestos shall be adequately designed and installed and regularly cleaned and maintained;
- special measures shall be taken during the removal of asbestos from, and during the demolition of, existing buildings, plant, structures and installations where there is a likelihood of the release of asbestos.

Article 7

The areas in which the activities referred to in Article 3 take place shall be:

- clearly demarcated and posted with safety signs;
- limited as regards access to those who work there; and
- no smoking areas.

Article 8

1. Sampling of asbestos in air shall be planned and carried out regularly and shall be representative of worker exposure. Personal samplers sampling at a rate of 1 litre/minute and using membrane filters shall be the reference sampling method; other sampling methods giving equivalent results may be used.

2. Sampling shall be carried out as soon as is reasonably practicable following substantial changes in, or the introduction of, activities covered by Article 3.

3. Employers shall be responsible for carrying out sampling and analysis. Its implementation shall be carried out in agreement with workers and/or their representatives in undertakings or establishments.

4. Sampling may be carried out intermittently or continuously throughout the working shift. However, the total sample duration shall not be less than one hour.

5. The frequency of sampling shall depend on the concentrations analysed such that the lower these concentrations, the less frequent the sampling. However, this frequency shall be at least every three months.

6. In the case of occasional exposure, sampling shall be carried out when appropriate.

7. For the purposes of analysis asbestos fibres shall be those fibrous silicates listed in Article 2 which are longer than five micrometres with a breadth of less than three micrometres, and with a length/breadth ratio of greater than three.

8. Counting of fibres shall be carried out by means of optical light microscopes.

9. In the case of a mixture in which crocidolite is used, the concentration shall be either analysed directly or calculated on the assumption that the proportion of crocidolite present in the mixture is equivalent to that in the air.

10. Sampling of asbestos in air shall be carried out by suitably experienced personnel. The subsequent analysis of the samples taken shall be carried out in laboratories which are recognized by the relevant authority of the Member State, equipped to carry out analysis of asbestos samples, and skilled in the necessary identification techniques.

11. The technical specifications for the sampling and analysis of asbestos in air shall be supplemented and adapted in line with technical progress in accordance with the procedure set out in Article 10 of Directive .../.../EEC.

Article 9

1. The concentration of crocidolite fibres in the air at work shall not exceed the limit value of 20×10^4 fibres per cubic metre of air (equivalent to 0.20 fibres per cubic centimetre) measured or calculated in relation to a reference period of eight hours.

2. The concentration of asbestos fibres other than crocidolite in the air at work shall not exceed the limit value of 10×10^5 fibres per cubic metre of air (equivalent to 1.0 fibre per cubic centimetre) measured or calculated in relation to a reference period of eight hours.

Article 10

Where a total sampling period of four hours or less is used to measure asbestos in the air at work, compliance with the limit values laid down in Article 9 can be considered as being assured if the results of analysis are below:

a) 10×10^4 fibres per cubic metre of air (equivalent to 0.10 fibres per cubic centimetre) for crocidolite,

b) 50×10^4 fibres per cubic metre of air (equivalent to 0.50 fibres per cubic centimetre) for asbestos fibres other than crocidolite.

If these values are exceeded then additional sampling of asbestos in the air at work shall be carried out to ensure that the asbestos in air limit values as laid down in Article 9 are not exceeded.

Article 11

Where the limit values laid down in Article 9 are exceeded, all necessary steps shall be taken to ensure that the situation is remedied as soon as is reasonably practicable.

In the intervening period the provisions of Article 12 shall apply.

Repeat sampling and analysis shall be made within a maximum period of eight days. If this shows that the limit values are still exceeded, all work shall cease in the area concerned until the situation is remedied. The reasons, the steps taken to remedy the situation and a request for approval to resume work shall be communicated to the relevant authority of the Member State.

Article 12

Where the limit values laid down in Article 9 are exceeded or it is foreseen that they will be exceeded

a) the relevant authority of the Member State, workers and/or their representatives in undertakings or establishments shall be informed,

b) workers shall be issued with personal protective equipment of an approved type which shall be worn, and

c) warning signs shall be put up.

Article 13

Protective equipment shall be placed in a defined location, checked and cleaned after each use, and a record kept of any defects which occur in particular during exposure and the action taken to repair or replace defective equipment before further use.

Article 14

1. A list shall be kept by the employer of all workers.

   A copy of such list shall be given to the doctor responsible for medical surveillance and made available to the relevant authority of the Member State.

2. An individual health record shall be established for each worker.

   Such record shall contain details of work carried out, the dates and duration of periods of exposure, the methods used for sampling and analysis, the concentrations of asbestos to which the worker has been exposed, the results of all tests which the worker has undergone, and the results of the health assessment.

   Such record shall be kept and maintained by the doctor responsible at the time for medical surveillance, for a minimum period of thirty years following the end of exposure.

Article 15

1. No worker shall be exposed for the first time or continue to be exposed to a risk of ill health from inhaling asbestos at work if it is considered that following an assessment of his health such a risk is contra-indicated. This assessment shall:
   a) be repeated at least once a year during the duration of exposure, and once every three years following the end of exposure;
   b) include a clinical examination of the chest, respiratory function tests (including vital capacity) and a standard format radiograph of the chest.

2. Without prejudice to national provisions and the specific requirements of individual workers, such health assessments procedures shall be supplemented and adapted in line with technical progress in accordance with the procedure set out in Article 10 of Directive .../.../EEC.

3. Each Member State shall lay down the procedure for appeal against the findings and decisions made in pursuance of this Article.

Article 16

1. Employers shall make available to each worker individual working or protective clothing, which shall be worn.

2. Separate locker and changing facilities shall be provided for such working or protective clothing and for street clothes. Adequate washing facilities including showers shall be provided, and shall separate the locker and changing facilities so as to prevent the transfer of asbestos from one to the other.

3. Working or protective clothing shall remain at work, it may however be transferred elsewhere in closed impermeable containers marked as containing asbestos to be laundered in special facilities.

Article 17

1. Workers shall be adequately instructed for the work they are to carry out. Such instruction shall include:
   a) technical, health and safety information,
   b) the precautions to be taken, including the wearing and use of protective equipment and clothing.

2. So that workers are aware that they are exposed to asbestos, they shall be so informed by their employers and all containers of asbestos as a raw material and all products of asbestos shall be clearly marked "Contains asbestos".

Article 18

1. The relevant authority of the Member State shall collect the statistics of all workers' sickness absences attributed to asbestos, which last longer than three days.

2. Member States shall keep a register of all persons suffering from asbestos-related diseases, including asbestosis and mesothelioma. The guidelines for this register shall be drawn up and adapted in line with technical progress in accordance with the procedure set out in Article 10 of Directive ../.../EEC.

3. A summary of the information required under this Article shall be transmitted annually to the Commission.

Article 19

1. The Commission shall convene when appropriate meetings of representatives of the Governments of Member States to examine any practical problems which may arise from the implementation of this Directive.

2. On the basis of the information collected, the Commission shall make reports to the Council.

Article 20

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive before 1 January 1985 and shall forthwith inform the Commission thereof.

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

Article 21

This Directive is addressed to the Member States.

ANNEX

INFORMATION TO BE SUBMITTED
FOR THE PURPOSES OF ARTICLE 4.3 AND ARTICLE 5

1. Name and address of applicant or notifier.

2. Succinct description by the applicant or notifier of:
   a) types and amounts of asbestos used
   b) processes used
   c) final products manufactured
   d) buildings, plant and equipment used

3. Other dangerous substances used.

4. Number of workers exposed to asbestos.

5. Health, safety and hygiene measures taken including details of the sampling and analysis of asbestos.

6. Reasons why crocidolite needs to be used, including reasons why it has not been replaced by safer substitutes.