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**MANDATE TO CEN IN THE FIELD OF STANDARDISATION
RELATIVE TO THE SAFETY OF CONSUMERS FOR A
FEASIBILITY STUDY ON POSSIBLE STANDARDIZATION
ON FIRE RESISTANCE OF NIGHTWEAR**

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1. Background

There exists at the moment no European legislation or requirements-standards on the subject of fire resistance of nightwear.

The Netherlands has requested a specific mandate for fire resistance of nightwear to be elaborated under the framework mandate for consumer safety.

According to a letter from the Dutch authorities the fire properties of certain kinds of textiles are such that, when they are exposed for a very short time to a small heat source such as a candle or a match, they very quickly ignite or there is very rapid flame propagation. Investigation and accident records from The Netherlands show that consumers are particularly at risk if such textiles are included in the making of nightwears. Several accidents have occurred but the legislative requirements have been withdrawn and the issue is now left to self-regulation. Agreements are being discussed between the industry and the relevant authorities. There is however a general agreement between the parties concerned that European harmonisation is desirable.

The Commission-services have against this background tried to assess the risks, current national requirements, possible means to meet the risks and other related problems.

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Identification of risk

Fires involving nightwear can lead to serious and sometimes fatal injuries. The burns are painful and may lead to permanent scarring, depending on the degree of burning and the

body surface involved. The medical and sometimes psychiatric treatment required may take long time and is in many cases very expensive.

According to several statistics the severity of accidents is often age dependent, and affects the youngest and particularly the oldest.

A Norwegian test of 10 morning-gowns showed a time span from 7 up to 33,5 seconds for a flame to spread over a 30 cm part of the different gowns. For the worst example, this would have meant 25 seconds before the whole gown had taken fire.

A British study estimates at least 750 clothing flammability accidents a year. Of these approximately 80 are fatal. Of the non-fatal accidents 225 involve severe burns requiring in-patient admission and 445 are minor. Night wear account for 28 % of the accidents. The study clearly shows that loose garments, especially night-dresses, dresses and skirts are more frequently involved in the more serious accidents.

Danish statistics reported from certain hospitals show 46 cases of fire in clothes caused by open fire during a five year period. However, only a few of these cases concerned nightwear. Similar French statistics show 10 cases of fire in nightwear during a six-year period.

The statistics from the Netherlands estimates several dozen fires in clothes a year. Fatal accidents occur on average twice a year.

European and national legislation

The use of some fire-retardants in textile products has been prohibited through Directive 76/769EEC as amended by Directives 79/663EEC and 83/264/EEC.

The United Kingdom Nightwear (Safety) Regulations 1985, issued under the Consumer Safety Act 1978, apply to nightwear and garments commonly worn as nightwear. Nightwear (except pyjamas and cotton terry towelling bath robes) for children between 3 months and 13 years of age must conform to certain flammability performance requirements while other nightwear must carry labels that indicate whether they conform to these requirements or not.

Sweden has official guidelines for fire resistance for all kinds of clothes offered for sale to consumers for private use.

Norway has regulations with minimum requirements for clothes for children.

European and national standards

It has been regarded difficult to develop flammability standards for textiles. CEN has only developed test method standards on flammability (for burning behaviour of fabrics for apparel : EN 1103 on detailed procedure fore determination. and for behaviour of vertically oriented specimens of Textile fabrics: EN 6940 on determination of ease of ignition and EN 6941 on measurement of flame spread properties). Requirements standards have not yet been developed.

There are British standards on specification for flammability performance of fabrics and fabric assemblies used in sleepwear and dressing gowns and methods of test for flammability of textile fabrics when subjected to small igniting flame.

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There is an ISO-standard on measurement of flame spread properties of Textile fabrics. A Dutch standard has been derived from this.

The Swedish and Norwegian regulations make reference to an American ASTM-standard on a test-method for flammability of clothes textiles other than children's sleepwear or protective clothing

Notifications pursuant to Directive 92/59

One notification on flammable clothes have been made, however the product was not a nightwear but a sweater. The notification was made by Sweden in 1996.

Notifications under Directive 83/189

In the framework of directive 83/189/EEC the following drafts were notified to the Commission between 1985 and 1996:

Notification **88/53/NL** dealt with nightwear for children and adults. The drafted text laid down the following aspects of fire safety: speed of flame spread (not more than 520 mm in 43 seconds), surface flash (not more than 75 mm in 10 seconds) and molten drops of burning fabric. Children's nightwear not complying with the regulation's requirements were to be withdrawn from the market; adults' nightwear had to be labelled as "inflammable". The notified draft provoked reactions from the part of the Member States (D and I) and the Commission. The Dutch legislation on fire safety on nightwear was finally adopted in 1993 (Commodities Act Order on Fire Safety for Nightwear of 16 October 1993), but only two years later repealed because of the Dutch Government's new policy of liberalisation and deregulation (notification n° **95/131/NL**).

On the subject of children's nightwear, Ireland intended to introduce a prohibition of textiles treated with TRIS (2,3-Dibromopropyl) and to make obligatory the compliance with Irish Standards on flammability and labelling (notification **88/153/IRL**). Reactions came from the Commission and D. As there was no obligation in 1988 upon Member States to communicate finally adopted technical regulations to the Commission, the actually adopted version could not be checked.

Notification **91/9075/N** prohibited the manufacturing, importing and selling of mattresses not passing the Nordtest 037 - BS 6807 (on the inflammability by a smouldering cigarette) which was also applied in Finland and Sweden. The final version of the notification is not available, as its transmission to the Commission is not foreseen under the EEA-Agreement.

The Finnish notification n° **96/225/FIN** provided for acceptance of the Standard SFS-EN 597-1 complying with EN-597-1:1994. The final version entered into force early 1996.

Standardisation work in progress

The CEN/TC 248/SC 1 "Burning behaviour of textiles, textile products and textile containing products" under the CEN/TC 248 "Textiles" will soon have completed it's work on standards for burning behaviour of textiles in general. No specific standard on flammability of nightwear has been developed.

The problem of the toxic nature of flame retardants

In order to slow down fast spread of fire in certain textile products and clothes, such as night-wear made of fibres of cotton or cotton-polyester, it is normally necessary to use flame retardants. Some un-ingnitabilty polybromine substances are the most cost-

effective substances to be used for textiles. The Commission has presented a proposal for a Directive prohibiting the use of certain flame retardants containing polybromine. However, it has not yet been possible to reach an agreement on this proposal. Only polybromine diphenyl has been prohibited on a community level. An agreement on prohibition or limitation of the use of polybromine exists within OECD.

If the use of flame retardant substances does not succeed in totally stopping the flame or smouldering fire and a thermal effect from other flame sources arises, this can lead to a smouldering fire where the retardant substances can contribute to the harmful side effect of toxic flue-gases.

The problem of the toxicity-risks for humans and for the environment of these products has been much debated. The Consumer Council of DIN (Deutsches Institut für Normung) has against this background in its January 1997-study "Flammability of materials and products, Findings and Conclusions" called for extreme carefulness in relation to standardisation of flammability requirements for products and materials.

Reactions from Member States

These conclusions were presented to Member States at the meeting of the Committee established by Directive 83/189/EEC on 24 April 1997. A majority of delegations expressed concern about the complexity of the problem with the existence of different types of risks: both fire and toxicological. All delegations were in favour of a feasibility mandate aimed at a deeper study of the problems and the possibilities to produce a requirements standard.

2. Description of the mandated work

CEN is requested to carry out a feasibility study concerning the production of a requirements standard for flammability of nightwear.

This study shall discuss the possibilities to produce standards for requirements for flammability aspects of nightwear taking into account the risk-situations described above and prospects to require the use of

- (1) materials with a burning behaviour which reduces the burning risks, also taking into account cultural habits concerning use of different materials
- (2) flame retardants, also taking into account the toxic nature of a number of flame retardants
- (3) other means to reduce the risk for burns.

3. Bodies to be associated

The work shall be so organised that all interested parties, including consumer associations, social partners, the regulators and the industry are in a position so that they can effectively participate. There will be a need to associate environmental and chemical experts for the study.

4. Execution of the request

CEN is invited to present to the Commission a feasibility report in accordance with the requirements set out in paragraph 2 and 3, within twelve months from acceptance of the present mandate.

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Following the execution of this mandate and depending on its results, a possible further mandate for the production of a standard can be envisaged.