



MANDATE TO CEN/CENELEC
CONCERNING THE EXECUTION OF STANDARDISATION WORK
FOR HARMONIZED STANDARDS ON

**FIRE ALARM/DETECTION, FIXED FIREFIGHTING, FIRE AND SMOKE CONTROL
AND EXPLOSION SUPPRESSION PRODUCTS**

RELATED TO THE FOLLOWING END USES

21/33: FIRE SUPPRESSION AND EXTINGUISHING SYSTEMS

23/33: SPACE HEATING, COOLING AND AIR CONDITIONING (INCL. MECHANICAL AND
NATURAL VENTILATION AND SMOKE EXTRACTION)

28/33: FIRE DETECTION AND ALARM

FOREWORD

This mandate is issued by the Commission to CEN/CENELEC within the context of the Council Directive of 21 December, 1988 on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products (89/106/EEC), hereafter referred to as "the Directive" or "the CPD".

One of the aims of the Directive being the removal of technical barriers to trade in the construction field, in so far as they cannot be removed by means of mutual recognition among Member States, it seems appropriate that standardisation mandates cover, at least during a first phase of the mandating programme, construction products likely to be subject to technical barriers to trade.

This mandate is intended to lay down provisions for the development and the quality of harmonised European standards in order, on the one hand, to make "approximation" of national laws, regulations and administrative provisions (hereafter referred to as "regulations") possible and, on the other hand, to allow products conforming to them to be presumed to be fit for their intended use, as defined in the Directive.

In this respect, this mandate takes account of the basic principles prevailing in the regulations of Member States, particularly those described in chapters 3 and 4.2 of the Interpretative documents, to which standardisers must refer. As stated by the Directive, the responsibility Member States have for construction works on their territory remains unchanged.

In order to fulfil the provisions of article 7.1 of the CPD the present mandate has been structured in the following way:

Chapter I Grounds. General conditions within the framework of the CPD.

Chapter II Execution of the mandate. Conditions regarding the programming, development and execution of the standardisation work.

Chapter III Harmonised standards. Conditions regarding the content and the presentation of the harmonised standards.

CHAPTER I. GROUNDS

1. This mandate falls within the framework of the general policy of the Commission with respect to technical harmonisation and standardisation, as well as within the scope of the Directive. It replaces any previous mandate on the same products formerly issued on a provisional base by the Commission.

2. This mandate is based on article 7 of the Directive and has taken into consideration the Interpretative Documents⁽²⁾ that serve as reference for the establishment of the harmonised standards (see article 12 of the Directive). It serves to ensure the quality of the harmonised standards for products, always with reference to the state of the art, with particular reference to the fitness of the products listed in annex 1 intended to be used in **FIRE ALARM/DETECTION, FIXED FIREFIGHTING, FIRE AND SMOKE CONTROL AND EXPLOSION SUPPRESSION PRODUCTS**, enabling the works to satisfy the essential requirements set out in annex 1 of the Directive, provided that barriers to trade in these products exist and that the products fall within the scope of article 2.1 of the Directive;

3. Levels or classes of requirements for the works are under the responsibility of Member States and are not covered by the present mandate. As a consequence, they are not expected to be defined in the harmonised standard.

4. Levels or classes of requirements for the products may be determined either in the Interpretative Documents or according to the procedure provided for in article 20 (2) of the Directive. In either case, where levels or classes of requirements for products are determined, guidance is given in Annex 3 to this mandate. This is not the case for classes of convenience, which are classes of product performances developed as a means of convenience for specifiers, manufacturers and purchasers. Such classes of convenience are not covered by the present mandate and should not be defined within the harmonised standard. Nevertheless, the results of the determination of the product characteristics may be expressed using classes of convenience introduced by European standards. Articles 3.2 and 6.3 of CPD do not apply to such classes.

5. The harmonised standards resulting from this mandate must allow for products to comply with them even where performance does not need to be determined for a certain characteristic because at least one Member State has no legal requirement at all for such characteristic. Declaration of performance for such a characteristic, in this case, must not be imposed on the manufacturer if he does not wish to declare it.

6. Indications regarding the documents which should be taken into account to inform standardisers and manufacturers on national and harmonised legislation on substances classified as dangerous are given in Annex 4.

⁽²⁾ O.J. N°C 62, 28.02.1994

CHAPTER II. EXECUTION OF THE MANDATE

1. CEN/CENELEC will present the Commission with a detailed work programme, at the latest, by the end of **October 1996**.
2. The work programme should identify clearly the list of harmonised standards to be developed. For each harmonised standard it should:
 - a) indicate the name(s) of the product(s) to be covered;
 - b) define the characteristics, durability aspects, intended uses and the forms and materials to be covered (in accordance with Annexes 1, 2 and 3 of this mandate);
 - c) attach the list of supporting documents (e.g. work items on test methods, ...);
 - d) justify the timetable foreseen for its finalization; and
 - e) identify the Technical Committee(s) responsible for the work.
3. Clear differentiation should be made between the item to become the harmonised standard for the product and the items to be used as supporting documents.
4. When a supporting test standard for one characteristic does not exist or is not in the work programme of the TC, a clear statement should be presented indicating whether CEN is able to produce one or not.
5. Any proposals for the addition of products, intended uses and materials and forms not included in the mandate but considered relevant by the TC should be presented separately from the work programme for further analysis by the Commission services. Standards prepared for products outside this mandate will not achieve the status of harmonised standards. In addition to the provisions of article 4.1 of the CPD, it must be taken into account that all the products included in the mandate have a system of attestation of conformity in accordance with the relevant Decision of the Commission; those products not included have not.
6. Any proposal for the addition of characteristics and durability aspects not included in the mandate but considered relevant by the TC should be proposed in a special chapter of the work programme for further analysis by the Commission services.
7. Where a classification system of the product performances is envisaged in Annex 3 of the present mandate, CEN/CENELEC are requested to make an appropriate proposal for its implementation.
8. CEN/TCs must give a technical answer for the determination of the characteristics of the mandate taking into account the conditions stated below; test methods suggested must be directly related to the relevant required characteristic and must not make reference to determination methods for characteristics not required by the mandate. Durability requirements should be dealt with in the framework provided by the state of the art at present.
9. Reference to test/calculation methods must be in accordance with the harmonisation aimed at. In general, only one method should be referred to for the determination of each characteristic, for a given product or family of products.

If, however, for a product or family of products because of justifiable reasons, more than one method is to be referred to for the determination of the same characteristic, the situation must be justified. In this case all referenced methods should be linked by the conjunction "or" and an indication of application should be given.

In any other case, two or more test/calculation methods for the determination of one characteristic can be accepted only if a correlation between them exists or can be developed. The relevant harmonised product standard must then select one of them as the method of reference.

Testing and/or calculation methods shall have, whenever possible, a horizontal character covering the widest possible range of products

10. Within the work programme, CEN/CENELEC will also specify those cases where the performance-based approach will not be followed in the harmonised standard and will give the relevant justification.

11. After examination of the work programme and consultations with CEN/CENELEC, the Commission services will endorse the timetable and the list of standards or parts of standards which meet the terms of this mandate and which will be recognised as harmonised or supporting standards.

12. The terms of reference of this mandate may be subject to modification or addition, if necessary. Acceptance of the work programme by the Commission services does not imply acceptance of all the WIs listed as supporting standards. TCs will need to demonstrate the direct link between WIs and the needs for harmonisation of the products, intended uses and characteristics given in the mandate. Nor does acceptance exclude the possibility for further WIs to be added by CEN, in order to fully respond to the terms of the mandate

13. Representatives of the authorities responsible for national regulations have the right and shall be able to participate in the activities of CEN/CENELEC through their national delegations and to present their points of view at all stages of the drafting process of the harmonised standards.

14. The Commission may participate in standardisation activities as observer and has the right to receive all relevant documents.

15. CEN/CENELEC will immediately inform the Commission of any problem relating to the carrying out of the mandate and will present an annual progress report on work within the framework of the mandate.

16. The progress report will include a description of work carried out and information on any difficulties being met, whether political or technical, with particular reference to those that might lead the authorities of a Member State to raise objections or to resort to article 5.1 of the Directive.

17. The progress report will be accompanied by the latest drafts of each standard under the mandate and by updated reports on any subcontracted work.

18. Acceptance of this mandate by CEN/CENELEC will initiate the standstill procedure referred to in article 7 of Council Directive 83/189/EEC of 28 March 1983 modified by Council Directive 88/182/EEC of 22 March 1988 and the European Parliament and the Council Directive 94/10/EC of 23 March 1994.

19. Acceptance of this mandate by CEN/CENELEC can take place only after the work programme has been endorsed by the Commission services.

20. CEN/CENELEC will develop the draft harmonised European standards and of the relevant supporting standards on the basis of the work programme and will inform the Commission in good time that the draft is being circulated for public comment.

21. CEN/CENELEC will present the final drafts of the harmonised European standards and of the relevant supporting standards to the Commission services for confirmation of compliance with this mandate at the latest in accordance with the timetable agreed between CEN/CENELEC and the Commission and referred to in point II.2.d).

22. CEN/CENELEC members will publish the standards transposing the harmonised European standards at the latest 6 months after a positive vote in CEN/CENELEC. National standards covering the same scope will continue to be applicable until the date agreed between CEN/CENELEC and the Commission in accordance with point II.2.d)

CHAPTER III. HARMONISED STANDARDS

1. Harmonised standards shall be prepared to allow those products listed in Annexes 1 and 2 to be able to demonstrate the satisfaction of the essential requirements. One of the purposes of the Directive being to remove barriers to trade, the standards deriving from it will therefore be expressed, as far as practicable in product performance terms (art. 7.2 of the Directive), having regard to the Interpretative Documents.

2. The harmonised standard will contain:

- A detailed scope and field of application;
- A detailed description of the product or family of products covered and the relevant intended uses of the different products;
- The definition of the characteristics of the products listed in Annex 2 of the mandate (expressed in performance terms, as far as practicable) that are relevant to the satisfaction of the essential requirements;
- The methods (calculation, test methods or others) or a reference to a standard containing the methods for the determination of such characteristics;
- Guidance on the characteristics that have to be stated within the labelling that will accompany the CE marking (depending on the intended use of the product) and on the way of expressing the determined values of these characteristics;
- The classification system and the levels for the above values of characteristics, if required by the mandate;
- The system for attestation of conformity as required in annex 3 of the mandate and the corresponding specific provisions for the evaluation of conformity.

3. A minimum or a maximum level of a given characteristic (e.g. for masonry units, a compressive strength not less than 2 N/mm²) that has to be met by the family of products or a product may be identified by the harmonised standard only if required by agreement of Member States expressed by positive vote under the procedure of article 20 .

4. As far as possible, each standard will make reference to performances common to other standards developed under mandate and which constitutes a cohesive and compatible group of harmonised European standards developed in parallel. CEN/CENELEC shall ensure consistency within the whole package.

5. A producer not wishing to meet a non-mandated European standard will be able to use the CE marking on his product by referring only to the relevant harmonised standard. On the other hand, if a non-mandated standard includes the entire content of the harmonised standard, compliance with the former standard will also give a presumption of conformity to the harmonised standard and will enable the bearing of the CE marking.

In the latter case, an appropriate system should be established in the European standard in order to clearly distinguish the CPD-related content from the remaining part of the standard.

6. Harmonised standards must permit construction products which allow works to meet the essential requirements and which are produced and used lawfully in accordance with technical traditions warranted by local climatological and other conditions to continue to be placed on the market.

7. The essential requirements being expressed in terms of performance of the works, the characteristics of the products should be also expressed in terms of performance so that, in referring to the harmonised European standards, the regulations may "approximate" evolving in terms of "performance requirements". As far as practicable and depending on the intended use mentioned in the annexes of this mandate, the standard shall include a definition of the durability in term of performance of the declared values of the product characteristics as well as suitable methods for its evaluation against the actions listed in Annex 2. If the durability is expressed in terms of classes of periods, articles 3.2 and 6.3 of the CPD will not apply.

9. The relevant systems for attestation of conformity, according to Article 13.3 and Annex III of the Directive, are listed in annex 3. For the establishment of the corresponding specific provisions of evaluations of conformity, the harmonised standard will take into account:

- the different intended uses of the product mentioned in the annexes of this mandate and, if any, the different levels or classes of performance;
- cases of individual (non series) production according to Article 13.5 of the Directive;
- the recommendations of paragraph 3 of Annex 3.

10. The label accompanying the CE marking will list all the characteristics to be declared according to the declared intended uses mentioned in the annexes of this mandate. In order to take into account existing regulations on products where performance for one or more characteristics may not be required, the label should allow the manufacturer the application of the "No performance determined" case for that or those characteristics.

ANNEX 1

FIRE ALARM/DETECTION, FIXED FIREFIGHTING, FIRE AND SMOKE CONTROL AND EXPLOSION SUPPRESSION PRODUCTS

LIST OF PRODUCTS TO BE INCLUDED IN THE MANDATE FOR:

21/33: FIRE SUPPRESSION AND EXTINGUISHING SYSTEMS

28/33: FIRE DETECTION AND ALARM

FORM	MATERIALS	PRODUCTS FOR CONSIDERATION
Systems/ Components	metals plastics glass	<p>FIRE DETECTION AND FIRE ALARM SYSTEMS - KITS</p> <ul style="list-style-type: none"> - Combined fire detection and alarm systems - kits - Fire detection systems - kits - Fire alarm systems - kits - Fire call systems - kits <p>FIRE DETECTION AND FIRE ALARM SYSTEMS - COMPONENTS</p> <ul style="list-style-type: none"> - Smoke, heat and flame detectors - Control and indicating devices - Alarm transmission routing devices - Short circuit isolators - Alarm devices - Power supplies - Input/output devices - Manual call points <p>SELF-CONTAINED SMOKE DETECTORS/ALARMS</p> <p>FIRE SUPPRESSION AND EXTINGUISHING SYSTEMS - KITS</p> <ul style="list-style-type: none"> - First aid hose systems - Dry and wet firefighting hydrant systems - Sprinkler and water spray systems - kits - Foam extinguishing systems - kits - Dry powder extinguishing systems - kits - Gaseous extinguishing systems (including CO₂ extinguishing systems) - kits <p>FIRE SUPPRESSION AND EXTINGUISHING SYSTEMS - COMPONENTS</p> <ul style="list-style-type: none"> - Fire hydrants - Water flow detectors/switches - Pressure detectors/switches - Landing valves - Inlet breeching - Firefighting pumps and pump sets - Nozzles/sprinklers/outlets <p>EXPLOSION SUPPRESSION SYSTEMS - KITS</p> <p>EXPLOSION SUPPRESSION SYSTEMS - COMPONENTS</p> <ul style="list-style-type: none"> - Detectors - Suppressors - Explosion sensors - Explosion relief products

FIRE ALARM/DETECTION, FIXED FIREFIGHTING, FIRE AND SMOKE CONTROL AND EXPLOSION SUPPRESSION PRODUCTS
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LIST OF PRODUCTS TO BE INCLUDED IN THE MANDATE FOR:

23/33: SPACE HEATING, COOLING AND AIR CONDITIONING (INCL. MECHANICAL AND NATURAL VENTILATION AND SMOKE EXTRACTION)

FORM	MATERIALS	PRODUCTS FOR CONSIDERATION
Components	metal plastics others	<p>FIRE AND SMOKE CONTROL INSTALLATIONS - KITS</p> <ul style="list-style-type: none"> - Smoke and heat exhaust ventilation systems - kits - Pressure differential systems - kits <p>FIRE AND SMOKE CONTROL INSTALLATIONS - COMPONENTS</p> <ul style="list-style-type: none"> - Smoke curtains - Dampers - Ducts - Powered ventilators - Natural ventilators - Control panels and emergency control panels - Power supplies

ANNEX 2
TECHNICAL TERMS OF REFERENCE

**FIRE ALARM/DETECTION, FIXED FIREFIGHTING, FIRE AND SMOKE CONTROL AND
EXPLOSION SUPPRESSION PRODUCTS**

TO BE USED IN: 21/33: FIRE SUPPRESSION AND EXTINGUISHING SYSTEMS
TO BE USED IN: 23/33: SPACE HEATING, COOLING AND AIR CONDITIONING (INCLUDING MECHANICAL AND
NATURAL VENTILATION AND SMOKE EXTRACTION)
TO BE USED IN: 28/33: FIRE DETECTION AND ALARM

Family and subfamilies

FIRE DETECTION AND FIRE ALARM SYSTEMS - KITS

Description of the family: fixed installations, operated manually or automatically, to provide an early warning to enable safe evacuation of the building and fire fighting or fire control procedures to be initiated.

Subfamilies included in this mandate are: combined fire detection and alarm systems, fire detection systems, fire alarm systems and fire call systems.

1 - COMBINED FIRE DETECTION AND ALARM SYSTEMS - KITS

Manually operated and automatic fire detection and alarm systems to provide the occupants of a building with an early warning of fire, to allow the safe evacuation of the building and give warning that fire fighting or fire control measures should be taken. The fixed items included in a kit may be: manual call points, automatic fire detectors, control and indicating equipment, alarm devices, alarm transmission routing equipment, power supplies, short circuit isolators and input/output devices.

2 - FIRE DETECTION SYSTEMS - KITS

Automatic fire detection systems to provide control signals to automatic fire protection equipment, which may be smoke vents, door release mechanisms, fixed extinguishing systems and equipment to alert the Fire Fighting Services. The fixed items included in a kit may be: automatic fire detectors, control and indicating equipment, alarm transmission routing equipment, power supplies, short circuit isolators and input/output devices.

3 - FIRE ALARM SYSTEMS - KITS

Manually and automatically initiated fire alarm systems to provide warning of fire, thereby allowing for the safe evacuation of the occupants of a building, providing a warning that manual fire fighting measures are needed and/or the initiation of automatic fire extinguishing systems. The fixed items in a kit may be: manual or automatic call points/detectors, control and indicating equipment, alarm devices and power supplies.

4 - FIRE CALL SYSTEMS - KITS

Manually or automatically operated equipment which is activated by a fire detection and/or fire alarm system to initiate the transmission of an alarm signal to call the Fire Fighting Service.

Characteristics to be covered by the harmonized standard will be:

E R	PERFORMANCE CHARACTERISTICS	Durability
1		
2	NOMINAL ACTIVATION CONDITIONS/SENSITIVITY (<i>thermal, pressure, smoke, flame, chemical and/or manual (as appropriate)</i>) RESPONSE DELAY (RESPONSE TIME) OPERATIONAL RELIABILITY TOLERANCE TO SUPPLY VOLTAGE PERFORMANCE PARAMETERS UNDER FIRE CONDITIONS	Y Y Y Y
3	SAFE CONTAINMENT OF RADIOACTIVE SOURCES	Y
4		
5		
6		

Family and subfamilies

FIRE DETECTION AND FIRE ALARM SYSTEMS - COMPONENTS

Description of the family: components sold individually to form part of a system. Components included in this mandate are: smoke, heat and flame detectors, control and indicating equipment, manual call points, alarm devices, alarm transmission routing equipment, power supplies, short circuit isolators and input/output devices.

1 - SMOKE, HEAT AND FLAME DETECTORS

Devices to detect a fire condition which then provide early warning of that condition. Detectors activated by a single criterion or by more than one criterion are included. When combined with other components, these devices form a fire detection and/or fire alarm system.

Characteristics to be covered by the harmonized standard will be:

E R	PERFORMANCE CHARACTERISTICS	Durability
1		
2	<p><i>FOR THE COMPONENTS:</i></p> <p>NOMINAL ACTIVATION CONDITIONS/SENSITIVITY (<i>thermal, pressure, smoke, flame, chemical and/or manual (as appropriate)</i>)</p> <p>RESPONSE DELAY (RESPONSE TIME)</p> <p>OPERATIONAL RELIABILITY</p> <p>TOLERANCE TO SUPPLY VOLTAGE</p> <p>PERFORMANCE PARAMETERS UNDER FIRE CONDITIONS</p>	<p>Y</p> <p>Y</p> <p>Y</p> <p>Y</p>
3	SAFE CONTAINMENT OF RADIOACTIVE SOURCES	Y
4		
5		
6		

2 - CONTROL AND INDICATING DEVICES

Equipment which is activated by fire detectors or manual call points, which can interpret and route the input signals and activate or initiate other components which will enable timely evacuation of the occupants of a building. They serve to identify either: the position of the source of the fire, and/or to alert the Fire Fighting Service and/or to provide signals to/initiate fixed fire fighting and fire control systems. Interconnection to other fire protection equipment for indication or control purposes is also included.

3 - ALARM TRANSMISSION ROUTING DEVICES

Equipment which enables the Fire Fighting Service to be alerted to a fire condition. Typical equipment will interface with public or private telephone networks, radio communication links, etc.

4 - SHORT CIRCUIT ISOLATORS

Devices which are connected to the wiring of a fire detection and fire alarm system to minimise the non-operation of the system as a result of a wiring short circuit fault (typically no more than 20 devices such as smoke detectors should become non-operational as a result of a short circuit fault).

Characteristics to be covered by the harmonized standard will be:

ER	PERFORMANCE CHARACTERISTICS	Durability
1		
2	<i>FOR THE COMPONENTS:</i> RESPONSE DELAY (RESPONSE TIME) OPERATIONAL RELIABILITY PERFORMANCE PARAMETERS UNDER FIRE CONDITIONS	 Y Y Y
3		
4		
5		
6		

5 - ALARM DEVICES

Devices which indicate to the occupiers of the building that a fire condition has been detected, either manually or automatically. Typical devices are sounders, voice communication equipment and light emitting beacons.

6 - POWER SUPPLIES

Equipment providing a safe alternative electrical source of power for fire detection and/or fire alarm and/or fixed fire extinguishing systems to ensure their operation when the primary source fails due to the fire conditions, faults in the primary source or other safety measures. The equipment typically uses the electrical mains as the primary power source with a re-chargeable battery as a secondary source of power. Various safety features are incorporated to ensure that the power supply integrity is confirmed and that any failure during service is notified to the fire alarm system.

7 - INPUT/OUTPUT DEVICES

Equipment which permits the input or output of information from a fire detection and fire alarm system to allow its interconnection to other equipment to reduce the risk associated with fire. Examples of other equipment are: fixed fire fighting systems, smoke vents, door closures, other fire detection and fire alarm systems.

Characteristics to be covered by the harmonized standard will be:

E R	PERFORMANCE CHARACTERISTICS	Durability
1		
2	<p><i>FOR THE COMPONENTS:</i></p> <p>RESPONSE DELAY (RESPONSE TIME) <i>(for alarm devices)</i></p> <p>OPERATIONAL RELIABILITY</p> <p>PERFORMANCE PARAMETERS UNDER FIRE CONDITIONS</p> <p>PERFORMANCE PARAMETERS ON FAILURE OF PRIMARY SOURCE <i>(for power supplies - includes functioning time)</i></p>	<p>Y</p> <p>Y</p> <p>Y</p> <p>Y</p>
3		
4		
5		
6		

8 - MANUAL CALL POINTS

Devices to allow the occupier of a building, on detecting a fire, to manually initiate the alarm function, either as a stand-alone device or as part of a fire detection and/or fire alarm system.

Characteristics to be covered by the harmonized standard will be:

E R	PERFORMANCE CHARACTERISTICS	Durability
1		
2	<p><i>FOR THE COMPONENTS:</i></p> <p>NOMINAL ACTIVATION CONDITIONS/SENSITIVITY (<i>thermal, pressure, smoke, flame, chemical and/or manual (as appropriate)</i>)</p> <p>OPERATIONAL RELIABILITY</p> <p>PERFORMANCE PARAMETERS UNDER FIRE CONDITIONS</p>	<p>Y</p> <p>Y</p>
3		
4		
5		
6		

Family and subfamilies

SELF CONTAINED SMOKE DETECTORS/ALARMS

Mains (with or without battery backup) and/or battery operated smoke detectors which provide an audible warning of a fire condition. They may be used independently or sometimes interconnected to provide a warning in other parts of a building than the source of the fire.

Characteristics to be covered by the harmonized standard will be:

E R	PERFORMANCE CHARACTERISTICS	Durability
1		
2	NOMINAL ACTIVATION CONDITIONS/SENSITIVITY (<i>thermal, pressure, smoke, flame, chemical and/or manual (as appropriate)</i>) RESPONSE DELAY (RESPONSE TIME) OPERATIONAL RELIABILITY TOLERANCE TO SUPPLY VOLTAGE PERFORMANCE PARAMETERS UNDER FIRE CONDITIONS	Y Y Y Y
3		
4		
5		
6		

COMPREHENSIVE TABLE OF CHARACTERISTICS

FIRE ALARM/DETECTION, FIXED FIREFIGHTING, FIRE CONTROL AND EXPLOSION SUPPRESSION PRODUCTS

E.R.	Performance characteristics	Fire detection and fire alarm systems - kits				Fire detection and fire alarm systems - components								Self contained smoke detectors/alarms	
		1	2	3	4	1	2	3	4	5	6	7	8		
1															
2	NOMINAL ACTIVATION CONDITIONS/ SENSITIVITY (<i>thermal, pressure, smoke, flame, chemical and/or manual (as appropriate)</i>)	Y	Y	Y	Y	Y								Y	Y
	RESPONSE DELAY (RESPONSE TIME)	Y	Y	Y	Y	Y	Y	Y	Y	Y					Y
	OPERATIONAL RELIABILITY	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	TOLERANCE TO SUPPLY VOLTAGE	Y	Y	Y	Y	Y									Y
	PERFORMANCE PARAMETERS UNDER FIRE CONDITIONS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	PERFORMANCE PARAMETERS ON FAILURE OF PRIMARY SOURCE										Y				
3	SAFE CONTAINMENT OF RADIOACTIVE SOURCES	Y	Y	Y	Y	Y									
4															
5															
6															

Family and subfamilies

FIXED SUPPRESSION AND EXTINGUISHING SYSTEMS - KITS

Description of the family: fixed installations, operated manually or automatically, to provide an extinguishing medium for fire fighting. Sub-families included in this mandate are: first aid hose systems, dry and wet firefighting hydrant systems, sprinklers and water spray systems, foam systems, powder systems and gaseous systems.

1 - FIRST AID HOSE SYSTEMS

Manual and fixed installations to provide the occupants of a building the means to control and extinguish a small fire nearby. They consist of fixed units mounted on walls or in cabinets permanently connected to a water supply installation. The fixed units are composed of a valve with or without pressure indicator, a semi-rigid water-filled hose reel or a lay-flat hose with its support, and a nozzle.

2 - DRY AND WET FIREFIGHTING HYDRANT SYSTEMS

Dry firefighting hydrant systems (dry risers) are vertical pipes permanently installed in a building or structure for firefighting purposes, fitted with inlet connections at fire service access level and outlet connections at specified points. The system is normally dry but capable of being charged with water or foam by pumping from fire service appliances.

Wet firefighting hydrant systems (wet rising mains) are vertical pipes installed in a building for firefighting purposes, permanently charged with water from a pressurised supply, and fitted with valves and outlet connections at specified points.

Characteristics to be covered by the harmonized standard will be:

ER	PERFORMANCE CHARACTERISTICS	Durability
1		
2	DISTRIBUTION OF EXTINGUISHING MEDIUM (<i>water or foam - static pressure and delivery capacity</i>) OPERATIONAL RELIABILITY ABILITY TO PULL OUT (<i>hose length - hose systems only</i>)	Y
3		
4		
5		
6		

3 - SPRINKLERS AND WATER SPRAY SYSTEMS - KITS

Systems designed to ensure early response to a fire by discharging a specified amount of water over a certain area during an appropriate period of time in order to control/extinguish the fire. The sprinkler system may also activate various emergency functions such as alarm to occupants and call of fire brigade. Sprinkler kits may include products such as sprinkler heads, installation control valves, alarm bells, flow indicators, water pumps and emergency power supply. Waterspray installations may include products such as multi-jet control valves, waterspray nozzles, pipes and fittings.

4 - FOAM EXTINGUISHING SYSTEMS - KITS

Manual or automatic systems meant to extinguish fires, particularly but not exclusively those involving flammable liquids. They operate with a solution of foam concentrate and water applied to the surface of a fire.

5 - POWDER EXTINGUISHING SYSTEMS - KITS

Manually or automatically operated systems meant to provide for the discharge of powder on to the fire at an early stage after ignition. Powder stored in container(s) is discharged by gas pressure through nozzles.

6 - GASEOUS EXTINGUISHING SYSTEMS (INCLUDING CO₂ EXTINGUISHING SYSTEMS) - KITS

Systems meant to release a quantity of gaseous product intended to either: dilute the oxygen content at the site of the fire by displacing part of it (e.g. CO₂ systems) or inhibit the chemical reaction of the burning substance and oxygen. They may simultaneously or previously give an alarm for action. Evacuation of occupants may be required before discharge of gas begins. The objective may be achieved by total flooding or by local application. Kits may include containers for gas (in liquid form), valves (including safety devices), controls, fittings and hangers, alarm systems and discharge nozzles .

Characteristics to be covered by the harmonized standard will be:

E R	PERFORMANCE CHARACTERISTICS	Durability
1		
2	NOMINAL ACTIVATION CONDITIONS/SENSITIVITY (<i>thermal, pressure, smoke, flame, chemical and/or manual (as appropriate)</i>) DISTRIBUTION OF EXTINGUISHING MEDIA RESPONSE DELAY (RESPONSE TIME) OPERATIONAL RELIABILITY PERFORMANCE PARAMETERS UNDER FIRE CONDITIONS	Y Y Y
3		
4		
5		
6		

FIRE SUPPRESSION AND EXTINGUISHING SYSTEMS - COMPONENTS

Description of the family: components sold individually to form part of a system. Components included in this mandate are: hydrants, water flow detectors/switches, pressure detectors/switches, landing valves, inlet breeching, firefighting pumps and nozzles/outlets. Note that other possible components of these systems, namely smoke, heat and flame detectors, control and indicating equipment, alarm transmission routing equipment, alarm devices, power supplies and manual control points are covered under the family of components for alarm/detection systems.

1 - FIRE HYDRANTS

Hydrants, pillar or buried, to be connected to a water main to which the fire brigade can connect fire-fighting equipment in order to fill reservoirs and/or supply hoses and monitors. Pillar hydrants may be wet or dry, internal or external.

Dry pillar hydrants consist of a hollow pillar (head) mounted above ground level and provided with connection outlets, a valve body connected with flanges to the main water supply pipe, and when necessary, a barrel that joins the head with the valve body which operates the valve. Wet pillar hydrants are permanently filled with water and consist of a pillar provided with connection outlets with an operating valve and a connecting flange.

Buried hydrants consist of valve(s) and connection outlet(s) in an underground chamber with a surface manhole cover.

2 - WATER FLOW DETECTORS/SWITCHES

Flow detectors serve to divide alarm areas into alarm zones (an alarm area being the area connected to an alarm valve), so that the operation of an alarm in a multi-storey building is more precisely located.

3 - PRESSURE DETECTORS/SWITCHES

Switches used in a fire suppression installation for signalling a change of pressure conditions.

4 - LANDING VALVES

An assembly comprising an outlet valve and outlet connection from a wet or dry riser or main for fire fighting purposes.

5 - INLET BREECHING

A unit at the inlet of a wet or dry riser, fitted with a non-return valve and multiple-way connections to a common pipe.

Characteristics to be covered by the harmonized standard will be:

E R	PERFORMANCE CHARACTERISTICS	Durability
1		
2	<p><i>FOR THE COMPONENTS:</i></p> <p><i>HYDRANTS</i> OPERATIONAL RELIABILITY CONNECTION DIMENSIONING</p> <p><i>WATER FLOW DETECTORS/SWITCHES AND PRESSURE DETECTORS/SWITCHES</i> NOMINAL ACTIVATION CONDITIONS/SENSITIVITY (<i>thermal, pressure, smoke, flame, chemical and/or manual (as appropriate)</i>) RESPONSE DELAY (RESPONSE TIME) OPERATIONAL RELIABILITY</p> <p><i>LANDING VALVES AND INLET BREECHING</i> OPERATIONAL RELIABILITY CONNECTION DIMENSIONING</p>	<p>Y</p> <p>Y</p> <p>Y</p>
3		
4		
5		
6		

6 - FIREFIGHTING PUMPS AND PUMP SETS

Pumps for providing firefighting systems with the required pressure for water supply.

7 AND 8 - NOZZLES/SPRINKLERS/OUTLETS WITH (7)/WITHOUT (8) ACTIVATION FUNCTION

Includes sprinklers with fusible elements or glass bulbs, having different shapes of water distribution and for use in different positions, medium and high velocity water sprayers, foam distributors, powder nozzles and gas discharge nozzles.

Characteristics to be covered by the harmonized standard will be:

E R	PERFORMANCE CHARACTERISTICS	Durability
1		
2	<p><i>FOR THE COMPONENTS:</i></p> <p><i>FIREFIGHTING PUMPS</i> PERFORMANCE PARAMETERS UNDER FIRE CONDITIONS</p> <p><i>NOZZLES/SPRINKLERS/OUTLETS WITH ACTIVATION FUNCTION</i> NOMINAL ACTIVATION CONDITIONS/SENSITIVITY (<i>thermal pressure, smoke, flame, chemical and/or manual (as appropriate)</i>) DISTRIBUTION OF EXTINGUISHING MEDIA RESPONSE DELAY (RESPONSE TIME)</p> <p><i>NOZZLES/SPRINKLERS/OUTLETS WITHOUT ACTIVATION FUNCTION</i> DISTRIBUTION OF EXTINGUISHING MEDIA</p>	<p>Y</p> <p>Y</p>
3		
4		
5		
6		

COMPREHENSIVE TABLE OF CHARACTERISTICS

FIRE ALARM/DETECTION, FIXED FIREFIGHTING, FIRE CONTROL AND EXPLOSION SUPPRESSION PRODUCTS

E.R.	Performance characteristics	Fixed suppression and extinguishing systems - kits						Fixed suppression and extinguishing systems - components							
		1	2	3	4	5	6	1	2	3	4	5	6	7	8
1															
2	NOMINAL ACTIVATION CONDITIONS/ SENSITIVITY (<i>thermal, pressure, smoke, flame, chemical and/or manual (as appropriate)</i>)			Y	Y	Y	Y		Y	Y					Y
	DISTRIBUTION OF EXTINGUISHING MEDIA	Y	Y	Y	Y	Y	Y							Y	Y
	RESPONSE DELAY (RESPONSE TIME)			Y	Y	Y	Y		Y	Y				Y	
	OPERATIONAL RELIABILITY	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		
	ABILITY TO PULL OUT (<i>hose length</i>)	Y													
	CONNECTION DIMENSIONING							Y				Y	Y		
	PERFORMANCE PARAMETERS UNDER FIRE CONDITIONS			Y	Y	Y	Y						Y		
3															
4															
5															
6															

EXPLOSION SUPPRESSION SYSTEMS - KITS

Installations consist of a sensor system and an extinguishing system. The sensor system consists of suitable detectors (thermo-electric, optical or pressure sensors, or a combination thereof) connected to a control unit or a valve. The suppression system consists of pressurized containers filled with the extinguishing medium, fitted with rapid action valves activated by a signal from the sensor system and designed to eject the extinguishing medium within the shortest possible time.

Characteristics to be covered by the harmonized standard will be:

E R	PERFORMANCE CHARACTERISTICS	Durability
1		
2	<p><i>FOR THE KITS</i></p> <p>NOMINAL ACTIVATION CONDITIONS/SENSITIVITY (<i>thermal, pressure, smoke, flame, chemical and/or manual (as appropriate)</i>)</p> <p>RESPONSE DELAY (RESPONSE TIME)</p> <p>DISTRIBUTION OF CONTROL MEDIA</p> <p>OPERATIONAL RELIABILITY</p> <p>PERFORMANCE PARAMETERS UNDER FIRE CONDITIONS</p> <p>EXTERNAL PRESSURE RESISTANCE</p>	<p>Y</p> <p>Y</p> <p>Y</p>
3		
4		
5		
6		

EXPLOSION SUPPRESSION SYSTEMS - COMPONENTS

Description of the family: components sold individually to form part of a system. Components included in this mandate are detectors, suppressors, explosion sensors and explosion relief products. Note that other possible components of these systems, for example control panels, are covered under other families in this mandate.

1 - DETECTORS

Devices or arrangement of apparatuses, containing one or more sensors that respond to a developing explosion by providing an explosion suppression activation signal.

2 - SUPPRESSORS

Appliances containing an explosion suppressant which can be expelled by the action of internal pressure. This pressure may be stored pressure or may be obtained by a chemical reaction such as the activation of an explosive or pyrotechnic device.

3 - EXPLOSION SENSORS

Devices which are responsive to the changes caused by a developing explosion, in one or more of the environmental parameters such as pressure, temperature and/or radiation.

4 - EXPLOSION RELIEF PRODUCTS

Devices which are installed in the boundaries of building compartments where explosions may occur and which allow pressure relief by providing a vent to the explosion. They include reusable and destructible pressure relief panels and vent pipes (Q-pipes).

Characteristics to be covered by the harmonized standard will be:

E R	PERFORMANCE CHARACTERISTICS	Durability
1		
2	<p><i>FOR THE COMPONENTS</i></p> <p><i>DETECTORS AND EXPLOSION RELIEF PRODUCTS</i> NOMINAL ACTIVATION CONDITIONS/SENSITIVITY (<i>thermal, pressure, smoke, flame, chemical and/or manual (as appropriate)</i>) RESPONSE DELAY (RESPONSE TIME) OPERATIONAL RELIABILITY OPENING SAFETY (<i>explosion relief products only</i>)</p> <p><i>SUPPRESSORS</i> RESPONSE DELAY (RESPONSE TIME) DISTRIBUTION OF CONTROL MEDIA PERFORMANCE PARAMETERS UNDER FIRE CONDITIONS</p> <p><i>EXPLOSION SENSORS</i> NOMINAL ACTIVATION CONDITIONS/SENSITIVITY (<i>thermal, pressure, smoke, flame, chemical and/or manual (as appropriate)</i>) RESPONSE DELAY (RESPONSE TIME) OPERATIONAL RELIABILITY PERFORMANCE PARAMETERS UNDER FIRE CONDITIONS EXTERNAL PRESSURE RESISTANCE</p>	<p>Y</p> <p>Y</p> <p>Y</p> <p>Y</p> <p>Y</p> <p>Y</p> <p>Y</p>
3		
4		
5		
6		

COMPREHENSIVE TABLE OF CHARACTERISTICS

FIRE ALARM/DETECTION, FIXED FIREFIGHTING, FIRE CONTROL AND EXPLOSION SUPPRESSION PRODUCTS

E.R.	Performance characteristics	Explosion suppression products - kits	Explosion suppression products - components			
			Detectors	Suppressors	Explosion sensors	Explosion relief products
1						
2	NOMINAL ACTIVATION CONDITIONS/ SENSITIVITY (<i>thermal, pressure, smoke, flame, chemical and/or manual (as appropriate)</i>)	Y	Y		Y	Y
	RESPONSE DELAY (RESPONSE TIME)	Y	Y	Y	Y	Y
	DISTRIBUTION OF CONTROL MEDIA	Y		Y		
	OPERATIONAL RELIABILITY	Y	Y		Y	Y
	OPENING SAFETY					Y
	PERFORMANCE PARAMETERS UNDER FIRE CONDITIONS	Y		Y	Y	
	EXTERNAL PRESSURE RESISTANCE	Y			Y	
3						
4						
5						
6						

FIRE AND SMOKE CONTROL INSTALLATIONS - COMPONENTS

Description of the family: components sold individually to form part of a system. Components included in this mandate are smoke curtains, dampers, ducts, powered ventilators, natural ventilators, control panels, emergency control panels and power supplies.

1 AND 2 - SMOKE CURTAINS FIXED (1) AND AUTOMATIC (2)

Devices (either fixed or capable of moving automatically into their operating position) used as a part of a smoke ventilation system to either: create ceiling reservoirs from which smoke and hot gases can be exhausted, or to stop the lateral spread of smoke and hot gases. May be fitted to the underside of a roof, ceiling or balcony within a building.

3 - DAMPERS

Mobile closures which may be either mounted within a duct or, for barometric dampers, mounted in a wall to prevent too high an overpressure or too low an underpressure. They may be operated automatically or manually, and are designed to prevent the passage of fire and/or smoke. Dampers may be opened to allow the passage of smoke above a certain temperature.

4 - DUCTS

Devices designed to transport smoke and/or hot gases away from the source of a fire. May also have a dual function as a normal air conditioning duct.

5 - POWERED VENTILATORS

Powered smoke and heat fans designed to remove smoke and hot gases from a construction works under fire conditions. May be manually or automatically operated, and are designed to handle hot gases for a limited period only. Includes dual purpose ventilators used for normal air conditioning.

6 - NATURAL VENTILATORS

Natural smoke and heat exhaust ventilators exhausting smoke and hot gases from a construction works. The ventilators establish a buoyant layer of warm gases above cooler, cleaner air, and operate by buoyancy forces caused by temperature differences. May be operated manually or automatically.

7 - CONTROL PANELS AND EMERGENCY CONTROL PANELS

Control systems, operated manually, automatically or both, which respond to signals from a detection system by operating the natural or powered smoke and heat ventilators, and/or smoke curtains and/or an alarm system. The fire-closed or fire-open position of the ventilators must be indicated. Control panels form an integral part of the smoke and heat exhaust system. Emergency control panels have the same function as control panels, but operated manually only. They have the specific task of serving as a back-up system for the control panel.

8 - POWER SUPPLIES

Equipment providing a safe alternative electrical source of power for fire detection and/or fire alarm and/or fixed fire extinguishing systems to ensure their operation when the primary source fails due to the fire conditions, faults or safety measures. The equipment typically uses the electrical mains as the primary power source with a re-chargeable battery as a secondary source of power. Various safety features are incorporated to ensure that the power supply integrity is confirmed and that any failure during service is notified to the fire alarm system.

Also included are pneumatic power supplies consisting of a compressor or a bank of bottles of compressed gas, used to operate smoke curtains and natural ventilators.

COMPREHENSIVE TABLE OF CHARACTERISTICS

FIRE ALARM/DETECTION, FIXED FIREFIGHTING, FIRE CONTROL AND EXPLOSION SUPPRESSION PRODUCTS

E.R.	Performance characteristics	Fire and smoke control installations - kits		Fire and smoke control installations - components								
		Smoke/heat exhaust systems	Pressure differential systems	1	2	3	4	5	6	7	8	
1												
2	NOMINAL ACTIVATION CONDITIONS/ SENSITIVITY (<i>thermal, pressure, smoke, flame, chemical and/or manual (as appropriate)</i>)	Y	Y		Y	Y		Y	Y			
	RESPONSE DELAY (RESPONSE TIME)	Y	Y		Y	Y		Y	Y	Y		
	OPERATIONAL RELIABILITY	Y	Y		Y	Y		Y	Y	Y	Y	
	DEPLOYMENT SAFETY				Y							
	EFFECTIVENESS OF SMOKE/HOT GAS EXTRACTION	Y	Y					Y	Y			
	PRESSURISATION PERFORMANCE		Y									
	AERODYNAMIC FREE AREA	Y							Y			
	PERFORMANCE PARAMETERS UNDER FIRE CONDITIONS	Y	Y					Y	Y	Y	Y	
	FIRE RESISTANCE - INTEGRITY E	Y	Y	Y	Y	Y	Y					
	FIRE RESISTANCE - INSULATION I	Y	Y			Y	Y					
	FIRE RESISTANCE - SMOKE LEAKAGE S	Y	Y	Y	Y	Y	Y	Y	Y			
	FIRE RESISTANCE - MECHANICAL STABILITY	Y	Y	Y	Y	Y	Y	Y	Y			
	FIRE RESISTANCE - MAINTENANCE OF CROSS SECTION	Y	Y			Y	Y					
	ABILITY TO OPEN UNDER ENVIRONMENTAL CONDITIONS							Y	Y			
3												
4												
5												
6												

ANNEX 3

ATTESTATION OF CONFORMITY

Product family : **Fire alarm/detection, fixed firefighting, fire and smoke control and explosion suppression products**

1. Levels and classes for product performances

- 1.1 According to Article 3 (2) of the CPD and Clause 1.2.1 of the IDs, for some products covered by this mandate a classification of product performance has been identified as the means of expressing the range of requirement levels of the works in respect of **resistance to fire (performance parameters under fire conditions)**. For products where this is the case, the relevant classification system is indicated in Interpretative Document n°2 for each product.

CEN/CENELEC are requested to follow the Interpretative Document guidance and make reference to the standard(s) to be prepared under Commission mandate "Horizontal complement to the mandates in respect of resistance to fire" in dealing with resistance to fire in the specific harmonised product standards to be developed under this mandate.

Where neither Interpretative Document n°2 nor the "Horizontal complement ..." identify a classification, it is to be assumed that at present the differences in Article 3 (2) of the CPD do not give rise to the need for classification.

- 1.2 Resistance to fire is the only risk for which the need for a classification system for products has been identified for the time being.

Further needs may be identified on the basis of differences specified in Article 3 (2) of the CPD, which are justified in conformity with Community law (IDs Clause 1.2.1). Where for such needs it is recognised that a classification of product performance is the means of expressing the range of requirement levels of the works, the Commission will give the appropriate guidance or will request CEN/CENELEC to make the appropriate proposal through a modification to this mandate.

2. Systems of attestation of conformity

For the product(s), intended use(s) and levels or classes listed below, CEN/CENELEC are requested to specify the following system(s) of attestation of conformity in the relevant harmonised standard(s) :

Product(s)	Intended use(s)	Level(s) or class(es) (<i>resistance to fire*</i>)	Attestation of conformity system(s)
<u>Kits for installation</u> <i>Fire detection/fire alarm</i> Combined fire detection and fire alarm systems - kits Fire detection systems - kits Fire alarm systems - kits Fire call systems - kits <i>Fire suppression and extinguishing</i> First aid hose systems - kits Dry and wet firefighting hydrant systems Sprinklers and water spray systems - kits Foam systems - kits Dry powder systems - kits Gaseous systems (including CO ₂ systems) - kits <i>Explosion suppression</i> Explosion suppression systems - kits <i>Fire control installations</i> Smoke and heat exhaust ventilation systems - kits Pressure differential systems - kits	Fire safety	- - - - - - - - - - - - - - - - - -	1
System 1: See CPD Annex III.2.(i), without audit-testing of samples			

* = See provisions in Interpretative Document n°2 and/or "Horizontal complement to the mandates in respect of resistance to fire".

Product(s)	Intended use(s)	Level(s) or class(es) (resistance to fire*)	Attestation of conformity system(s)
<u>Continued</u>			
Self-contained smoke detectors/alarms	Fire safety	-	1
<u>Components</u>			1
<i>Fire detection/fire alarm</i>			
Smoke, heat and flame detectors		-	
Control and indicating devices		-	
Alarm transmission routing devices		-	
Short circuit isolators		-	
Alarm devices		-	
Power supplies		-	
Input/output devices		-	
Manual call points		-	
<i>Fixed suppression and extinguishing</i>			
Fire hydrants		-	
Water flow detectors/switches		-	
Pressure detectors/switches		-	
Landing valves		-	
Inlet breeching		-	
Firefighting pumps and pump sets		-	
Nozzles/sprinklers/outlets		-	
<i>Explosion suppression</i>			
Detectors		-	
Suppressors		-	
Explosion sensors		-	
Explosion relief products		-	
System 1: See CPD Annex III.2.(i), without audit-testing of samples			

* = See provisions in Interpretative Document n°2 and/or "Horizontal complement to the mandates in respect of resistance to fire"

Product(s)	Intended use(s)	Level(s) or class(es) (<i>resistance to fire*</i>)	Attestation of conformity system(s)
<u>Continued</u> <i>Fire control</i> Smoke curtains Dampers Ducts Powered ventilators Natural ventilators Control panels and emergency control panels Power supplies	Fire safety	- See ID2 See ID2 - - - -	1
System 1: See CPD Annex III.2.(i), without audit-testing of samples			

* = See provisions in Interpretative Document n°2 and/or "Horizontal complement to the mandates in respect of resistance to fire"

3. Conditions to be applied by CEN on the specifications of the attestation of conformity system

3.1 The specification for the system should be such that it can be implemented even where performance does not need to be determined for a certain characteristic, because at least one Member State has no legal requirement at all for such characteristic [*see Article 2.1 of the CPD and, where applicable, clause 1.2.3 of the Interpretative Documents*]. In those cases the verification of such a characteristic must not be imposed on the manufacturer if he does not wish to declare the performance of the product in that respect.

**FIRE ALARM/DETECTION, FIXED FIREFIGHTING, FIRE AND SMOKE CONTROL
AND EXPLOSION SUPPRESSION PRODUCTS**

European technical specifications must be adopted taking into account necessary legislation on substances classified as dangerous.

This results from the Interpretative Documents, where it is noted in the introduction note to all six of them that:

"Concerning dangerous substances which are in construction products, classes and/or levels of performance to which technical specifications will refer, shall allow the levels of protection needed by the works to be guaranteed, taking into account the purpose of the works."

In addition, outside the scope of the Directive, writers of technical specifications must take into account legislation which affects materials to be used for construction products and which are regulated for reasons not related to the incorporation of the construction products into the works.

In order to permit technical specifications writers to take into account the necessary legislation, a working document was elaborated by the Commission services (doc. CONSTRUCT 95/148 Rev. 1 of January 4, 1996). Specification writers should use this document as a guide but must also take account of any other relevant or dangerous substances which the working document does not yet include.