EUROPEAN COMMISSION
ENTERPRISE AND INDUSTRY DIRECTORATE-GENERAL

New Approach Industries, Tourism and CSR
Construction, Pressure Equipment, Metrology

Brussels, 13th July 2009
M/447 EN

AMENDMENTS TO:

HORIZONTAL COMPLEMENT TO THE MANDATES TO CEN/CENELEC CONCERNING THE EXECUTION OF STANDARDISATION WORK FOR

THE EVALUATION OF CONSTRUCTION PRODUCTS AND ELEMENTS IN RESPECT OF THEIR RESISTANCE TO FIRE

Explanatory note

The CEN TC 166 requested the amendment of the Mandate 117 regarding resistance to fire in order to clarify the meaning of the wording "*normal operating conditions*" appearing in the first amendment (M 134) and to extend the scope including all chimneys, not only those designated as soot-fire resistant.

The request is also supported by existing regulations in at least one Member State (UK).

The proposed attached amendment already include the modifications introduced by the above-mentioned first amendment. The proposed modifications appear underlined with fonts in red.

This amendment modifies the original mandates in the following manner:

The Annex 2 of the mandate M 117 to CEN/CENELEC on **THE EVALUATION OF CONSTRUCTION PRODUCTS AND ELEMENTS IN RESPECT OF THEIR RESISTANCE TO FIRE** shall be modified as indicated in Annex A of this amendment.

Responsible: person: Georgios Katsarakis (georgios.katsarakis@ec.europa.eu)

ANNEX A

Introduction:

The Annex 2 of the original mandate needs to be amended as follows.

AMENDMENT TO ANNEX 2 OF MANDATE

HORIZONTAL COMPLEMENT COVERING THE EVALUATION OF THE RESISTANCE TO FIRE OF CONSTRUCTION PRODUCTS AND ELEMENTS

I. FIRE TEST CONDITIONS

…….(Omissis) …..

I.E **Constant temperature attack**

E.1 In addition to the heating regimes given above, the evaluation of some elements of components of buildings is made using a notional constant value of temperature. The specified temperature and the rate at which the temperature is reached depend upon the type of element/component.

E.2 The following temperatures are used for the products indicated:

200°C for evaluating the leakage rate of medium temperature smoke control doors

300°C for evaluating the performance of heat and smoke ventilators

400°C for evaluating the performance of heat and smoke ventilators

500°C for evaluating the fire performance of raised floors

600°C for evaluating powered and natural smoke ventilators, smoke extraction ducts, smoke control dampers, and smoke curtains

842°C for small diameter power, control and communication cables with intrinsic fire resistance.

Temperatures and hot gas velocities according to Table 1 of EN 13216-1:2004 for evaluating the thermal performance of chimneys and chimney related products.

1000°C for evaluating soot fire resistance of chimneys and chimney related products

…….(Omissis) …..

II DEFINITIONS OF RESISTANCE TO FIRE PERFORMANCE CHARACTERISTICS

…….(Omissis) …..

II.J Chimneys

a) without soot fire resistance "O"

For chimneys and chimney related products (such as flue blocks and connectors) not designed to be resistant to soot fires, the classification "O" is used. The test is

undertaken with a constant temperature attack according to table 1 of EN 13216-1:2004, applied under appropriate test conditions, this being maintained to reach the maximum temperature. Flues and other chimney products designed to be built into a surround (e.g. a brick chimney) need only satisfy a leakage requirement at the end of the test. Products and elements where the external surface or surfaces of the chimney are within a building must satisfy an insulation requirement, defined as being a maximum temperature of adjacent combustible materials not exceeding 85°C when related to an ambient temperature of 20°C.

Any distance to combustible material shall be declared. The "O" classification will be followed by this designation of the necessary distance.

b) with **soot fire resistance "G"**

For chimneys and chimney related products (such as flue blocks and connectors) designed to be resistant to soot fires, the classification "G" is used. The test is undertaken with a constant temperature attack of 1000°C, applied under appropriate test conditions, this being maintained for 30 minutes (after 10 minutes to reach the maximum temperature). Flues and other chimney products designed to be built into a surround (e.g. a brick chimney) need only satisfy a leakage requirement at the end of the test.

Products and elements where the external surface or surfaces of the chimney are within or adjacent to a building must satisfy an insulation requirement defined as being a maximum temperature of adjacent combustible materials not exceeding 100°C when related to an ambient temperature of 20°C.

Any distance to combustible material necessary to achieve this requirement shall be declared. This value shall not exceed the distance required to satisfy the criteria for normal operating conditions defined under the classification "O".

The "G" classification will be followed by the designation of the necessary distance.

…….(Omissis) …..

IV CHARACTERISTICS AND CLASSES APPLICABLE TO SPECIFIC ELEMENTS

…….(Omissis) …..

IV.D **Products for non-load bearing elements or parts of works**

…….(Omissis) …..

Classification of chimneys

This covers chimney products designed to be built in to a permanent structure and chimneys and chimney products where one or more external surfaces are within a building.

a) without soot fire resistance "O" - Exposure/action: constant temperature attack according to table 1 of EN 13216-1:2004.

b) with soot fire resistance "G" - Exposure/action: constant 1000°C reached after 10 minutes, for a total test time of 40 minutes.

- Performance criteria defined as:

(a) for built in products, leak resistance under pressure after the defined exposure,

(b) for other elements and products, satisfaction of insulation defined in section II.J.

- Classification:

Products and elements satisfying the above criteria on a pass/fail basis may use the letter "O" to denote non-soot fire resistance, and "G" to denote soot fire resistance.

…….(Omissis) …..