

Revising the Construction Products Directive - The impact on construction products with a fire performance

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Dr Haselmair welcomed delegates to the conference organised by EGOLF and EAPFP with the support of the EC. The situation of CE marking construction products with a fire performance was now becoming understood and the conference would hear about experiences with the existing system and understand the proposals for revision. He was firmly of the view that national systems should now be put to side and the European way was the only way to move to the future.

The manufacturers' experiences

Representatives from four sectors of industry gave their views on their involvement in the European construction market.

The glass industry - *Mike Wood, Pilkington*

Mr Wood opened the conference with a challenging view from his industry sector. He supported the political ideal of a European open market with a single technical language, but he proposed that the process established under the CPD was too complex and centralised. A better dialogue was needed between the EC and industry and he felt there was a lack of understanding about how the markets operated. Was the CPD meeting its objective in providing buildings designed and built for better fire safety? Under the CPD what was a product? Using the example of glass, he showed that glass was always used as part of a system, not alone, and fire safety depended on system thinking. A consequence of this was also the importance which should be paid to the quality of installation, and this was not addressed in the CPD. He did not want CE = 'Confused Europe'. In conclusion he posed five questions for the EC

- Where is the dividing line between central regulation and local control to be drawn?
- Do they acknowledge that there is a limit to what can be achieved through the process and practice of standardization?
- What are the proposals to ensure consistency of approach (interpretation and implementation) from the notified bodies?
- How will the focus be re-directed on to the essentials of best practice in the achievement of "fit for purpose" fire safety in buildings?
- What can be done in moderating the sheer weight of documentation in the CPD process and in tailoring it more closely to market needs?

Thermal insulation products - *Birgitte Messerschmidt, Rockwool International A/S*

Ms Messerschmidt explained that CE marking of thermal insulation products had been possible since 2002 and they were the first product group to CE mark products which had a declared reaction to fire performance. At that time there was limited experience in using the new SBI test and the reaction to fire Euroclassification system. This provided challenges in two areas:

- 1 The field of application of test results, which was about what was covered by the declared classification. It was influenced by product parameters and end use application parameters. This was also important as grouping products together resulted in lower

testing costs. Later, guidance on direct and extended application of test results was provided in CEN/TS 15117.

- 2 Mounting and fixing test specimens in fire tests. The influence of this on fire test results came as a surprise to many, this had not been foreseen and no guidance was given in product standards. Initially not all Notified bodies were aware of this issue but CEN/TC88 and the GNB Fire Sector Group developed guidelines. The FSG was considered an invaluable forum for providing guidance as it could work faster than CEN, but to be fully effective its guidance should be followed by all Notified Bodies.

Echoing the point made by the previous speaker Ms Messerschmidt noted that the CPD addressed individual products but the Essential Requirements related to finished constructions. A manufacturer was only responsible for his own products but Member states regulated at the level of materials, products and finished constructions, this needed to be addressed by manufacturers and standards developers.

She concluded that reaction to fire testing for CE marking was not a simple task, the field of application of the test results needed to be addressed by manufacturers. Furthermore the importance of mounting and fixing conditions should be understood and clear guidance given in product technical specifications.

Forthcoming CE marking in the door industry - *Werner Hrdy, Domoferm International GmbH*

Mr Hrdy introduced the views of the door industry which was not yet able to CE mark fire doors as the necessary product standards had not yet been published. His industry fully supported the objectives of the CPD. The fire test method for doors (EN 1634-1) had been published in 2000, and it was well into its first revision. Manufacturers throughout Europe were testing to EN 1634-1 but there were some drawbacks to this in the period leading to CE marking:

- mutual recognition of test reports was not yet working satisfactorily due to lack of acceptance by some national authorities
- test results on identical fire doors were showing wide variability in different laboratories (up to 25%)
- although standards covering extended application of test results were in preparation, the standardisation process was being slowed down by endless comments and negative voting
- classification of fire doors to EN 13501-2 was still not accepted in some Member States
- there was no mutual recognition of audit reports between Member States.

These factors resulted in his industry was being hindered in their move to adopt European test and classification systems in advance of CE marking. Some Member States still insisted on their existing national systems being followed.

Turning to the longer term, Mr Hrdy urged everyone to take a positive approach to implementation of the CPD and hoped that any obstacles could be removed by:

- harmonisation of legislative framework
- clarification of some fundamentals of the CPD
- use of market surveillance to improve credibility.

Fire protective boards - *Stefaan Van Haute, Promat International NV*

Mr Van Haute described CE marking of these products against the ETAG / ETA route. The three previous speakers had spoken about CE marking their products to European Technical Specifications prepared in CEN, ENs. Some Technical Specifications were covered by ETAGs, prepared in EOTA, from which an ETA (European Technical Approval) would be prepared by a national Approvals Body. In addition to addressing performance against the Essential Requirements of the CPD, the ETAs would also address durability and serviceability. ETAG 18 covered fire protective products and ETAG 26 covered fire stopping and fire sealing products.

Under the CPD an ETA was a Technical Specification against which products could be CE marked. However recent thinking by the EC was that compliance with an ETA was voluntary, and this was causing some confusion within the industry. EAPFP members were urging the EC to clarify the position of ETAGs in their revision of the CPD.

Finally he urged a common approach to the system of attestation for characteristic of fire resistance; system 1 for all products was proposed. Mr Van Haute emphasized, the first objective was to provide **safety** in case of fire.

The Notified Body's view of CE marking - *Yannick Le Tallec, efectis France*

Dr Le Tallec set out the roles of the three types of Notified Bodies covering Certification, Inspection and Testing. She emphasized again that the Essential Requirements of the CPD covered the construction works but only products could be CE marked. However, in comparison to the traditional New Approach Directives the CPD gave more details and, using the hEN route, it was not difficult to demonstrate compliance of a product.

Bodies were notified to the EC by their Member States and minimal requirements were set out in annex IV of the CPD and Guidance Paper A. However she was concerned that criteria for notification were different across Member States and rules for verification were not defined.

The Notified Bodies used harmonized standards in their tasks but some of these did not provide sufficient details for common interpretation. EC Guidance Papers were useful but they had no legal status. The Group of Notified Bodies (GNB) had become essential for Notified Bodies providing a forum for exchanges of views and development of common interpretations on topics. However not all Notified Bodies participated and were not obliged to follow agreed position papers, a situation which she considered should be improved. Position papers developed by the GNB were available to all on the NANDO database on ec.europa.eu/enterprise/construction. NANDO also held details of each Body's Notification, but this was sometimes not up to date.

Addressing the revision of the CPD, Dr Le Tallec noted that CE marking was not yet fully implemented for all products and she suggested that any revision should await completion of this phase. Notified Bodies and manufacturers understood well the system under the CPD which she considered was easier to follow than other new approach directives. One key missing item was market surveillance and she also proposed a database of CE marked products should be developed.

Experiences of an ETA Body - *Hans Joachim Seyfert, DIBt*

Prof Seyfert began by reminding delegates of the objectives of harmonization and the purpose of CE marking under the CPD using either the EN or ETA route. He explained the importance of these Technical Specifications covering all necessary aspects of a product's performance and setting out clearly the tasks needed in the attestation process for CE marking. He considered ETAs were a useful tool for innovative products or kits and he hoped the procedures for preparing such ETAs could be simplified.

When selecting the system of attestation the interests of users and market surveillance should be taken into account and he also suggested considering the module approach used in new approach directives. Addressing co-existence periods, he felt these should be clearly set taking into account practical needs and the same obligations should be met by all Member States. In summary he concluded there was a need for:

- better implementation and use of the CPD rather than changes in conception and contents
- simplification and acceleration of procedures
- clarification regarding:
 - o responsibilities and tasks of the Commission, Member States, CEN, EOTA and notified bodies
 - o general conditions concerning the content and quality of hENs and ETAs
 - o purpose, meaning and content of CE marking of construction products (compared with New Approach Directives)

The specifier's views on the CPD, technical specifications and CE marking - *Karlheinz Zachmann European Council of Civil Engineers*

In the unavoidable absence of Mr Zachmann, his paper was presented by Mr Van Haute.

Mr Zachmann acknowledged that it had taken a long time from inception of the CPD to development of the supporting infrastructure and publication of product Technical Specifications. He considered an important link had to be made between the CPD and Eurocodes and their relationship to existing national codes. Eurocodes provided an important instrument for calculation and design of structures and EU wide information should be provided concerning their national adoption.

Looking to the revision of the CPD, he proposed:

- comprehensive technical specifications
- transparency concerning national application documents
- availability of all relevant documents prepared in clear technical language
- verifiable and traceable performance claims for products
- market surveillance in Member States
- accreditation by Notified Bodies by mutually recognised systems
- compulsory CE marking also having a relationship with neighbouring directives
- CE marking not to be needed if Essential Requirements not relevant

In conclusion, Civil Engineers wanted the revision of the CPD not to dilute any of the essentials of the existing text, strengthen the links to Eurocodes and mandating of other codes linked to health and safety and energy saving.

Fire regulations and the CPD - *Hervé Tephany, Ministry of the Interior, France*

Mr Tephany reminded delegates that there was European harmonisation of declaring product performance but regulations were still the responsibility of Member States and they were mostly written in prescriptive terms. Technical Specifications covered products and, sometimes, kits, but the differences between kits and systems was unclear. It was possibly only based on the way in which products were placed on the market. He was concerned that there was only minor assessment of products incorporated into works. Some product ENs covered only the minimal technical content. Transparency was missing in the development of ETAGs, in fact he questioned whether some of the published ETAGs should have been prepared through the conventional CEN route leading to ENs.

In adopting national regulations in France they had maintained their existing national fire classification system alongside the Euroclassification system as the latter did not address all products, e.g. paint. It was also necessary to have precise information about end use conditions in test data. He considered CE marking was still not a well understood concept and he hoped the route to CE marking could be simplified. Many products with a fire performance required system 1 attestation, but regarding interpretation of the starred footnotes for the attestation of conformity for reaction to fire performance, he felt interpretation of this was still being asked of Notified Bodies.

Notified Bodies played an essential role in the implementation of the CPD but there was not sufficient information about their activities on NANDO, especially those fire laboratories involved in systems 3 attestation. He supported harmonisation of the notification process and mandatory implementation of decisions from the GNB. Market surveillance was needed but he questioned whether Member States had the means to undertake this.

In conclusion he commented:

- there would be a lack of equality if CE marking was not mandatory everywhere
- more work was needed on incorporation of products/kits inside buildings. National marks may be justified on this topic.
- CPD has increased the performances of products in many sectors (e.g. SBI, resistance to fire, smoke exhaust ...) and this has been demonstrated via AoC procedures
- there is a need to avoid undermining the benefits of the CPD by the ambiguous action of some NBs.

Fire issues in the CPD - *Giancarlo Bedotti, EC DG Enterprise*

Mr Bedotti opened his presentation by summarising the process from the CPD to CE marking and reminded delegates of the scope and objectives of the CPD, especially in relation to fire performance. Euroclassification systems had been developed for

- reaction to fire (wall & ceiling linings, floorings, cables and linear pipe thermal insulation)
- fire resistance
- external fire performance of roofs

He summarised these systems which had now been adopted in all Member States. EC Decisions had been issued for products which were 'deemed to satisfy' without the need for testing and also those which could be 'classified without further testing' (CWFT).

The EC had supported work in the fire sector through the BENEFEU project to study the potential benefits of fire safety engineering in the EU and also the round robin for the SBI test method. Future activities would include development work for other fire scenarios, if needed, progressing CWFT applications and monitoring the revision of the fire standards in CEN/TC127.

The revision of the CPD: the main ideas of the future Commission proposals and the next steps - *Vicente Leoz Argüelles, EC DG Enterprise*

Mr Leoz initially responded to some of the points raised by previous speakers.

'do not revise the CPD now' – no, the thinking of the EC and consultation had demonstrated that revision was needed now.

'CE = confused Europe' – much of this confusion arose from a lack of communication between manufacturers, designers and national regulators.

'CE marking equates to safety of buildings' – this was not true, the CPD was the basis of this misunderstanding so changes were needed.

'ETAs are voluntary' – the CPD was not clear on this point.

'develop a database of CE marked products' – this had not been justified for an EC action but could be a possible private sector action, the benefits of such a database had not been demonstrated.

'CPD v New Approach Directives' – the CPD was not a new approach directive. The CPD was different as it was the means of expressing product performance not about conformity with a directive. There were some common elements between the CPD and NADs, e.g. the use of Notified Bodies and market surveillance. Confusion on these fundamental concepts needed clarifying.

Mr Leoz then turned to the ECs views on the revision of the CPD.

The CPD was a complex directive and simplification was needed. Much work had been done by manufacturers, Notified Bodies and others who were now familiar with the system; this knowledge and experience would not be thrown away in the revision of the CPD. Looking to the timescale, it was planned to submit a text to the Commissioners by the end of 2007 for subsequent discussion in Council and Parliament. After this the revision would come into effect in three years time, 2011. No further mandates would be issued to CEN and no ETAGs would be developed in the new system.

The existing directive would be replaced by a Regulation, this would make its implementation mandatory in all Member States. Direct implementation of a Regulation would save on bureaucracy and enable national regulators to express their national requirements in the same language which would also be taken up by users, designers, architects etc.

Specific terminology would be defined in the CPR to clarify, accreditation of Notified Bodies and market surveillance would also be addressed. He considered accreditation of Notified Bodies should be compulsory to give more credibility to the system.

It would not be an easy task to simplify the CPD, the specific problems of SMEs had been noted but specific tools for them could not be developed. However, new tools to assist all would be introduced and compliance by means other than testing would be available. Sharing / cascading testing would be included and also a new tool, a 'technical file' though he did not elaborate how this would be used.

CE marking was not the fundamental objective, what was, was providing information about a product. A CE mark just indicated that the necessary procedures had been undertaken in determining the product's performance.

Mr Leoz then answered questions from delegates.

Q If accreditation was to be compulsory for Notified Bodies should it not also be compulsory for Assessment Bodies?

A This could be introduced.

Q Introducing a Regulation was a political action, were the views of national regulators known as this would make CE marking mandatory in all countries?

A The status of CE marking does not depend upon there being a Directive or Regulation.

Q What were the views of SMEs on this Regulation, in countries where CE marking was not currently mandatory they could ignore it?

A This was a difficult issue and needed consideration.

Q The current status of ETAs was confusing.

A In the CPR ETAs would be mandatory.

Q If CE marking did not mean fire safety in buildings, was it meaningful?

A Member States were responsible for fire safety in buildings, the EC was responsible for the internal market.

Q Could national fire classifications be used at a national level for national approvals?

A If the Euroclassification system was not adopted this was a Member State responsibility, even at a national level EU legislation could not be ignored.

Market Surveillance under the CPD - *Olav Berge, National Office of Building Technology and Administration, Norway*

Mr Berge reminded the conference that the CPD required Member States to ensure CE marking was correctly used and they had a duty to ensure products complied with the appropriate regulations and, furthermore, should take appropriate measures to withdraw from the market any non-complying products. Findings from national questionnaires showed:

- most Member States had systems of market surveillance in place and construction products were covered by general product safety legislation
- approximately half of the Member States had the same surveillance authorities for construction markets and general buildings
- most countries had proactive and reactive monitoring of the market
- sanctions in most countries included withdrawal of products and fines and such actions had been taken already

Future work at a European level would involve:

- differentiate between general market surveillance and topics particular to construction
- mutual joint visits
- awareness of local authorities
- who instigates in case of reaction to products
- how to create national high level awareness
- national funding and financing of operations
- cooperation with other authorities e. g. customs
- cooperation on procedures for specific product families between certain countries
- relation to other marks
- developing a database of products
- compilation list of market surveillance authorities and contact point in all countries
- awareness of tools in relation to problem solving
- information systems for dangerous products
- overlapping directives with the CPD
- industry to act as an intermediary between the producer and authorities

The European fire classification system, and the use of extended application and historic data - *Paul Vandavelde, warringtonfiregent, Belgium*

Prof Vandavelde reminded delegates that a classification report, in accordance with EN 13501, was based on specific test reports. Current standards identified the direct application of the results of fire tests i.e. the scope of validity of a result of a fire test. Work was now progressing on the extended field of application of results of fire tests which would reduce the number of expensive fire tests and take profit from existing experience and expert knowledge. This would enable one or more test results, the application of defined rules and possibly calculations to be applicable to a wider range of products. He emphasised that this process did not permit the use of individual expert opinion. Extended application guidance, in standards, was now available or in preparation. As a consequence of this the process of obtaining classification from extended application was now being established in CEN/TC127 and he summarised the basics of this process. In the development stage there had been some confusion caused by conflicting information being available in product standards and those prepared by CEN/TC127. Procedures were now in place to prevent this re-occurring.

Prof Vandavelde then turned to clarification of the use of historic data. This did not include existing national data and only related to data from European tests under defined circumstances. This had been clearly set out in a GNB document available on NANDO and in summary it concluded that historic data should only be used if:

- the NB is certain that its MS is satisfied of the NB's competency and when one or more of the following are met:
- adequate provisions are made in the harmonised standard, or;
- where the prhEN is not materially different from the hEN regarding testing, or;

- where the test EN used is not different from that in the hEN;
- the SG has agreed a position paper that has been approved.

For a manufacturer to CE mark his product using test results of a NB prior to the body being fully notified then the NB needs to reissue historic test reports, or issue a written declaration, with all the information required by GP 'K' part 'Sample marking and Reporting' – to complete the manufacturer's technical file.

The use of national test data, in the extended application process, had been established in the GNB Fire Sector Group and was set out in a document available on NANDO.

The relationship between national and voluntary marks and the CPD - *Eric Winnepenninckx, BBRI, Belgium*

Mr Winnepenninckx posed the question of whether additional marks might disappear with the increased acceptance of CE marking. The credibility of CE marks depended upon a combination of effort from the Notified Bodies and market surveillance. He asked if market surveillance authorities were the appropriate tool for claims of product performance. He suggested means to increase the credibility of the CE marking system and concluded that with the existing systems there was a demand for third party involvement to ensure that product performance claims were reliable. Whilst CE marking provided market access, other marks provided market acceptance. CEPMC had developed requirements for additional marks:

- voluntary (accessible for all, but no obligation)
- no overlaps or confusion with CE Marking
- decision for use of mark: independent accredited (3rd) parties
- transparent rules
- added value
 - o trust, information and/or reliability for users
 - o increasing sales or profits and practical benefit for manufacturers
- non-discriminatory.

In conclusion he considered that unless the revised CPD covered more than just regulatory requirements there was always the potential for a manufacturer's and or user's need for additional marks.

General questions on all presentations

Q why cannot national data greater than five years old be used in extended application (as set out by the GNB FSG)?

A In several countries five years was set as the limit of validity of national test reports and it should be noted that a product may have changed in that period. But it was also pointed out that a test report could be re-validated by the fire test lab after the five year period.

Q Is there a report publicly available on the work on market surveillance reported by Mr Berge?

A Not yet.

Q what was the position on the use of calculations instead of test data?

A Within the GNB there had been discussions on Notified Bodies being accredited for undertaking calculations, this would include aspects such as validation of computer models. At a recent seminar on fire safety engineering it was suggested that new rules needed to be established for such calculations, though fire safety engineering related to works not products.

Conference summary

Mr Schmidt Pedersen summarised the main points of the day's discussions:

- 1 The CPD was generally accepted but there was need for improvements in its implementation
- 2 The EC had indicated that the bureaucracy and complexity of the existing system would be simplified
- 3 Mandatory implementation across all Member states would be ensured by introduction of the CPR making CE marking compulsory
- 4 Market surveillance was a key issue to be addressed
- 5 Common procedures such be adopted for notification of Notified Bodies
- 6 Notified Bodies should be encouraged to attend meetings of the GNB and adoption of their agreements should be compulsory on all Notified Bodies. Sanctions should be applied to those which did not comply
- 7 A database of CE marked products would not be developed by the EC
- 8 A common language for all interested parties to use would be included in the CPR
- 9 Clarification would be one of the key roles of the CPR.