

# DBI NEWS

## **New Danish regulations for the planning and installation of sprinkler systems**

### **Globalisation has meant that the rules governing sprinkler systems have to be adapted to meet international requirements**

For many years now, the planning and installation of sprinkler systems in Denmark has been carried out in accordance with DBI's Regulation 251. The technical element of the regulation is based on the European insurance federation CEA's rules – adapted to Danish circumstances.

Despite positive experiences with the installations that have been carried out, globalisation has brought with it a need for uniform installations – on the part of both the business owners and the insurance companies. This need is greatest in Europe, but there is also an increasing desire that systems the world over should be able to be assessed from the same set of rules.

On the basis of this, the Danish regulations have now been revised so that, in future, installations are carried out in accordance with a set of rules that are known and trusted outside the country's borders.

As a result, the European insurance federation - CEA's regulations on the planning and installation of sprinkler systems were chosen: CEA 4001.

Another option would have been to use EN 12845, which is the European standard for design, installation and maintenance of sprinkler systems.

The reasons for the ultimate choice of CEA's rules are the following:

- The rules are the most up to date in Europe with regard to practical use of the latest technology.
- Adoption of the working group's recommendations on changes occurs much quicker in CEA than in the corresponding system in the European standardisation federation CEN. This means that CEA is able to implement the necessary rule changes quicker.

To this end, the Danish Insurance Association (F&P), who are the Danish "owners" of CEA's set of rules, have signed an agreement with the Danish Institute of Fire and Security Technology (DBI) who have been transferred the rights for translation and publication of the document in Denmark.

On the basis of this, a technical committee has been established, under the auspices of DBI, whose task it is to draw up the new Danish guidelines for the implementation of sprinkler systems.

In practice, this will be done by translating CEA's rules into Danish with the necessary linguistic modifications, but without any technical changes. In the event of any modifications being made, these will be clearly marked.

This will necessitate additions being made to the rules. An example of this could be the need for rescue preparedness orientation plans when the system is activated. Any additions will be published as appendices to the set of rules.

It has also been agreed with the technical committee that some of the details in EN 12845, which do not appear in CEA's regulations, will be incorporated into the new set of rules. These will also be clearly marked.

### **Contacts:**

Henrik Bygbjerg, hby@dbi-net.dk and Finn Massesson, fm@dbi-net.dk.

## Now carpets must be CE-marked

### CE marking and product certification of floor covering systems

Carpets and other floor covering systems that are put on the market in Europe must, from 1st January 2007, carry the CE mark. This has generated a lot of business for DBI who has obtained accreditation for product certification of floor covering systems and associated products.

The first step towards obtaining a CE mark is a visit to the manufacturer's premises, during which the company's quality control system is reviewed. At the same time, representative samples of the products for which certification is sought are selected.

Further to the accreditation, DBI has achieved notification for the issuing of CE certificates for floor covering products. This notification means that DBI can be involved in the whole process - from the taking of samples through testing and classification to the final certification of the product and issue of the CE certificate. When all of this is done, the manufacturer can label the product with the CE mark.

Fire-testing of floor covering systems is carried out in accordance with the standard EN/ISO 9239-1 (flame spread) and EN/ISO 11925-2 (ignitability), and on the basis of that, the final fire classification can be made in accordance with EN 13501-1.

### Not only fire

In order to obtain the CE mark, the floor covering system must meet a number of EU-harmonised requirements, and these do not only relate to fire and safety, but also to other characteristics.

The objective of the CE mark is to allow manufacturers to put their products on the market throughout the whole EU and EEA area without the need for further documentation.

Some of the largest carpet manufacturers in Denmark have chosen DBI to carry out all work relating to product certification. Among these is Egetæpper A/S in Herning, who is one of Europe's biggest carpet manufacturers.

### Contact person:

Tom Nisted, tn@dbi-net.dk

## New requirements for total flooding extinguishing systems

### Equipment must carry the CE mark and be system certified

In tandem with an increasing number of automatic inert gas total flooding extinguishing systems being installed, both in Denmark and the rest of the world, there is an increasing need for quality assurance and common regulations.

Most recently, in accordance with the Construction Product Directive (CPD Directive), which lays down pan-European regulations, new rules have been introduced which stipulate that control and delay devices for automatic total flooding extinguishing systems must be certified and carry the CE mark.

This means that only systems using CPD certified control and delay devices can be used for automatic total flooding extinguishing systems. This rule applies regardless of whether a product has to be approved by an inspection body or voluntarily certified.

"It is therefore no longer permitted to sell a central system based on an automatic fire alarm system together with non-certified control and delay devices, even though the functional requirements set out in Regulation 253 on Inert Gas

### CPD-certification

*Control and delay devices for automatic total flooding extinguishing systems must be CE marked in accordance with the Construction Products Directive 89/106/CEE (CPD) in order to comply with the harmonised standard DS/EN 12094-1 Fixed firefighting systems – Components for gas extinguishing systems – Part 1: Requirements and test methods for electrical automatic control and delay devices.*

### System certification

*System certificates for automatic total flooding extinguishing systems can be issued on presentation of a report that meets the requirements of system testing in Regulation 232 – The testing element.*

*The installation requirements in Regulation 253 on Inert Gas Automatic Total Flooding Extinguishing Systems still have to be met.*

*Installation regulation 253 stipulates that the detection element must meet the requirements of Regulation 232 Automatic Fire Alarm Systems. This regulation requires that automatic fire alarm systems must be system certified, so that it has been documented that all elements of the system can work together correctly.*

Automatic Total Flooding Extinguishing Systems have been fulfilled.”

Thus explains Henning Albøge of DBI adding that the following procedure has to be gone through in order to obtain a CE marking:

- A notified certification body has to select test items from the place of production.
- The test items selected must be tested in accordance with EN 12094-1 at a notified test laboratory, after which a test report has to be written.
- The notified certification body issues a CE certificate if the test result/report warrants this.
- The producer or importer prepares a “declaration of conformity” and can subsequently apply the CE mark to the product in accordance with the terms of the Construction Products Directive.

### **Requirement on system certification**

Henning Albøge points out that there is still a variation in the installation requirements for total flooding extinguishing systems in individual member countries. Thus, in Denmark it is required as code of practice that both the detection element and the control and delay devices are system certified – even if they have been CPD certified.

In order to obtain a system certificate for automatic total flooding extinguishing systems a test report has to be prepared. It should document an acceptable functionally balanced interaction between the detection, control and delay devices and the other system parts. This is exactly the same as applies to automatic fire alarm systems.

The installation requirements in Regulation 253 on Inert Gas Automatic Total Flooding Extinguishing Systems still have to be fulfilled. cf. the fact box.

At [www.dbi-net.dk](http://www.dbi-net.dk) you can see an overview of automatic total flooding extinguishing systems that meet the applicable requirements.

DBI carries out both CPD and system certifications and can be contacted if you need further information.

### **Contact person:**

---

**Danish Institute of Fire and Security Technology**

Jernholmen 12, DK-2650 Hvidovre  
Tlf.: +34 36 34 90 00, Fax: +45 36 34 90 01  
E-mail: [dbi@dbi-net.dk](mailto:dbi@dbi-net.dk)  
[www.dbi-net.dk/en](http://www.dbi-net.dk/en)

