NSAI Standards

Standard Recommendation
S.R. CEN/TS 14816:2008

Fixed firefighting systems - Water spray systems - Design, installation and maintenance

S.R. CEN/TS 14816:2008

Incorporating amendments/corrigenda issued since publication:

This document replaces:	*This document is based on:* CEN/TS 14816:2008	*Published:* 12 November, 2008

This document was published under the authority of the NSAI and comes into effect on:
16 January, 2009

ICS number:
13.220.20

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Údarás um Chaighdeáin Náisiúnta na hÉireann

S.R. CEN/TS 14816:2008

TECHNICAL SPECIFICATION

SPÉCIFICATION TECHNIQUE

TECHNISCHE SPEZIFIKATION

CEN/TS 14816

November 2008

ICS 13.220.20

English Version

Fixed firefighting systems - Water spray systems - Design, installation and maintenance

Installations fixes de lutte contre l'incendie - Systèmes d'extinction à pulvérisation d'eau - Conception, installation et maintenance

Ortsfeste Brandbekämpfungsanlagen - Sprühwasserlöschanlagen - Planung, Einbau und Wartung

This Technical Specification (CEN/TS) was approved by CEN on 9 September 2008 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

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Ref. No. CEN/TS 14816:2008: E

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Foreword

This document (CEN/TS 14816:2008) has been prepared by Technical Committee CEN/TC 191 “Fixed firefighting systems”, the secretariat of which is held by BSI.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

It is included in a series of European standards planned to cover:

- automatic sprinkler systems (EN 12259, EN 12845),
- gas extinguishing systems (EN 12094),
- powder systems (EN 12416),
- explosion protection systems (EN 26184),
- foam systems (EN 13565),
- hydrant and hose reel systems (EN 671),
- smoke and heat control systems (EN 12101).

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this Technical Specification: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

Water spray systems can be suitable, in some instances, for extinguishment of fire and in others for prevention of fire spread, and may be independent of or supplementary to other forms of fire protection.

A water spray system consists of a water supply (or supplies) and one or more sprayers usually open; each system consists of a control valve set and a pipe array fitted with sprayers.

The design of specific systems may vary considerably, depending on the nature of the hazard and the basic purposes of protection. Because of these variations and the wide choice in the characteristics of sprayers, it is assumed that these systems are competently designed, installed and maintained. It is essential that their limitations as well as their capabilities be thoroughly understood by the designer.

It should not be assumed that the provision of a water spray system entirely obviates the need for other means of fighting fires and it is important to consider the fire precautions in the premises as a whole. Special measurement may also be required, for example bounding flammable liquid risks or the protection drain of flammable liquids spillage.

Structural fire resistance, escape routes, fire alarm systems, particular hazards needing other fire protection methods, provision of hose reels, fire hydrants and fire extinguishers, etc., safe working and goods handling methods, management supervision and good housekeeping all need consideration.

It is essential that water spray systems should be properly maintained to ensure operation when required. This routine is liable to be overlooked or given insufficient attention by supervisors. It is, however, neglected at peril to the lives of occupants of the premises and at the risk of crippling financial loss. The importance of proper maintenance cannot be too highly emphasized.

When water spray systems are out of service, extra attention should be paid to fire precautions and the appropriate authorities informed.

This standard is intended for use by those concerned with purchasing, designing, installing, testing, inspecting, approving, operating and maintaining water spray systems, in order that such equipment will function as intended throughout its life.

It is a basic assumption that this standard is for the use of companies employing personnel competent in the field of application with which it deals. The design, installation and maintenance of water spray systems should be undertaken only by trained and experienced personnel. Similarly, competent technicians should be used in the installation and testing of the equipment.