

# SLOVENSKI STANDARD SIST EN 15975-2:2013

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Varnost preskrbe s pitno vodo - Smernice za obvladovanje tveganja in krizno vodenje - 2. del: Obvladovanje tveganja

Security of drinking water supply - Guidelines for risk and crisis management - Part 2: Risk management

Sicherheit der Trinkwasserversorgung - Leitlinien für das Risiko- und Krisenmanagement - Teil 2: Risikomanagementh STANDARD PREVIEW

Sécurité de l'alimentation en eau potable - Lignes directrices pour la gestion de risque et de crise - Partie 2: Gestion de risque<sub>SIST EN 15975-2:2013</sub>

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13.060.20 Pitna voda **Drinking water** 

13.200 Preprečevanje nesreč in Accident and disaster control

katastrof

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**EUROPEAN STANDARD** 

EN 15975-2

NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

August 2013

ICS 13.060.20

## **English Version**

# Security of drinking water supply - Guidelines for risk and crisis management - Part 2: Risk management

Sécurité de l'alimentation en eau potable - Lignes directrices pour la gestion des risques et des crises - Partie 2: Gestion des risques

Sicherheit der Trinkwasserversorgung - Leitlinien für das Risiko- und Krisenmanagement - Teil 2: Risikomanagement

This European Standard was approved by CEN on 5 July 2013.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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# **Foreword**

This document (EN 15975-2:2013) has been prepared by Technical Committee CEN/TC 164 "Water supply", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2014, and conflicting national standards shall be withdrawn at the latest by February 2014.

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.

In crisis situations, which are difficult to forecast and, therefore, impossible to make complete provision for in risk management, appropriate crisis response management applies. Such situations are addressed in EN 15975-1.

This second part of guidelines for risk and crisis management describes a risk management approach for routine operations. This standard is complemented by Part 1 addressing crisis management procedures.

This is the second part of the European Standard "Security of drinking water supply — Guidelines for risk and crisis management" consisting of two parts as follows:

- Part 1: Crisis management; (standards.iteh.ai)
- Part 2: Risk management.

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The elaboration of this European Standard has been financially supported by the EC and the CIPS Program (Grant Agreement HOME/2009/CIPS/FP/CEN-002).

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

# Introduction

A risk management approach, which is focused on all the elements of the drinking water supply chain (protection of sources, water abstraction, transport, treatment, storage and distribution), will contribute to meeting the drinking water supplier's requirements to ensure the safe, reliable, sustainable, environmentally friendly and economical operation of its drinking water supply system in order to provide safe drinking water up to consumers' taps. This standard supports the holistic Water Safety Plans (WSP) approach of the World Health Organization (WHO) (see [2], [3]).

Across Europe, there are many different ways to organise drinking water supply. The responsibility for risk management may differ depending on legislation and the nature of the organisations involved (public or private). National legislation can impose definitions that differ from the ones defined in this standard. In this case, the necessary adaptations should be made in the application of this standard.

This document incorporates fundamental elements of the WHO Water Safety Plan approach. As it is based on risk management, the approach helps to prevent a potential impairment of supply. The goal of the approach is to support water suppliers to actively address safety issues in the context of routine water supply management and operations.

Implementing a risk management approach is of added value as it supports systematic evaluation of the drinking water supply system's setup, diligent performance of system management as well as identification and prioritisation of improvement and upgrade needs. Furthermore, it improves communication among stakeholders, particularly those who share responsibility for the water supply chain.

The overall drinking water risk management approach employs the more general principles of value analysis which can be applied across many fields of business activity. This approach helps reinforce the significance of drinking water supply risk management within the organization sist/dd2df50c-59ec-40f4-845a-

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# 1 Scope

This European Standard describes the principles of a risk management approach to improve the integrity of the drinking water supply system.

This European Standard addresses all entities and stakeholders sharing responsibility in the provision of safe drinking water throughout the entire supply chain from the source to the point of use.

### 2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

#### 2.1

# drinking water supply system integrity

existence of drinking water supply system suitable to meet specified quality, quantity, continuity and pressure targets in accordance with legal/regulatory requirements and the drinking water supplier's objectives

#### 2.2

#### hazard

biological, chemical, physical or radiological agent in, or condition of water, with the potential to cause harm to public health

Note 1 to entry: Condition includes quantity DARD PREVIEW

#### 2.3

#### hazardous event

event that introduces hazards to, or fails to remove them from, the drinking water supply system

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# corrective action

action to eliminate the cause of a non-conformity (non-fulfilment of an operational target) and to prevent recurrence

### 2.5

#### risk control measure

any action and activity that can be used to prevent or eliminate a hazard or reduce it to an acceptable level

# 2.6

#### risk

combination of the likelihood of a hazardous event and the severity of consequences, if the hazard occurs in the drinking water supply system

#### 2.7

## failure

deviation from normal operating conditions characterised by its cause and the extent

# 2.8

#### validation

obtain evidence, assessment and approval of the capability of the current or proposed control measures

#### 2.9

#### verification

routine confirmation, through the provision of objective evidence, that the drinking water supply system is delivering water in accordance with the set objectives and that the risk management approach is effective

# 2.10 drinking water supplier body responsible for delivering drinking water

# 3 Objectives and stakeholders' responsibility

A drinking water supplier should satisfy a number of objectives. For the purpose of this European Standard, the principal goal is the achievement of appropriate objectives in accordance with local and/or national regulations. These may include:

- health-based water quality objectives;
- service objectives (e.g. continuity, sufficient quantity, sufficient pressure at all points of delivery);
- acceptability (e.g. aesthetic) objectives.

The multiple-barrier approach aims to establish risk control measures throughout all processes in the drinking water supply chain (e.g. protection of resources, abstraction, treatment, storage, transport, distribution, water installations inside buildings). The application of the multiple-barrier approach is a sound basis to achieve the above-mentioned objectives.

Responsibilities in the drinking water supply chain may vary and rest with the service providers or other stakeholders (e.g. authorities, property owners). Each of them may have only limited control of the risks affecting the supply chain. In order to achieve the objectives of safe and secure water supply it is necessary that all the stakeholders involved cooperate.

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# 4 Risk management approach

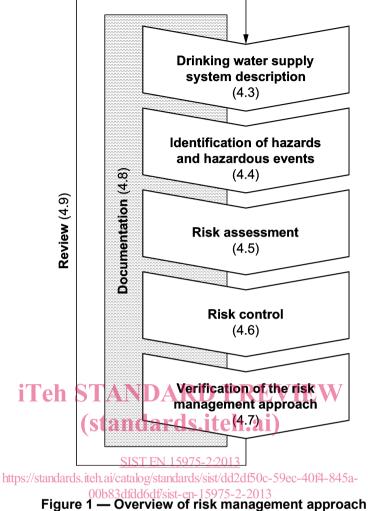
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#### 4.1 General

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The drinking water supplier should introduce a risk management approach. For the purpose of this European Standard, this approach aims to identify hazards and hazardous events, and assess and control resulting risks that may occur in the drinking water supply chain from catchment to consumer. This approach comprises the elements shown in Figure 1.

All drinking water supply systems are faced with risks which need to be controlled adequately. The method employed to ensure appropriate risk control is called risk management. A consistent and systematic risk management approach allows the drinking water supplier to analyse and to compare risks that may occur in the elements of the drinking water supply chain (e.g. caused by technical failures, natural hazards, disasters or malicious attacks).



# 4.2 Interdisciplinary group for risk management approach

The risk management approach should be developed and steered by a drinking water supplier's core risk management team.

The risk management approach should be applied by an interdisciplinary group whose members are adequately knowledgeable about the drinking water supply system concerned. External experts may be consulted for example to support the work, if necessary.

The respective roles of the interdisciplinary group, the drinking water supplier's core risk management team and the crisis management team (see EN 15975-1) should be determined.

#### 4.3 **Drinking water supply system description**

The risk management approach should be based on an up-to-date description of the respective drinking water supply system taking account of relevant legal/regulatory requirements and knowledge gained from the interdisciplinary group. This description should cover all elements from the catchment area to the point of delivery to the customer or downstream distributor. This system description should include a flowchart for each supply system. It can be useful also to describe the situation outside the drinking water supplier's own responsibility (e.g. conditions in the catchment area or service installations in the customers' properties).

The responsibilities of the drinking water supplier and all other relevant stakeholders who share responsibility in the drinking water supply chain should be unambiguously defined together with the interfaces between them and their respective responsibilities at these interfaces.