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Guidelines for water safety plan concept in buildings

Leitfaden für die Umsetzung des Water Safety Plan Konzeptes in Gebäuden

Lignes directrices pour concevoir des plan de sécurité pour l'eau dans les bâtiments

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Guidelines for water safety plan concept in buildings

Lignes directrices pour concevoir des plan de sécurité pour l'eau dans les bâtiments

Leitfaden für die Umsetzung des Water Safety Plan Konzeptes in Gebäuden

This draft Technical Report is submitted to CEN members for Vote. It has been drawn up by the Technical Committee CEN/TC 164.

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

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European foreword

This document (FprCEN/TR 17801:2021) has been prepared by Technical Committee CEN/TC 164 “Water supply”, the secretariat of which is held by AFNOR.

This document is currently submitted to the Vote on TR.

Introduction

This document describes the elements and the procedure of the Water Safety Plan for potable water installations inside buildings. The Water Safety Plan is a risk-based management approach, which aims to provide safe potable water at the point of consumption of the potable water installation. In order to achieve this goal, the Water Safety Plan includes a method for the analysis, evaluation and control of risks, which are described in this document as a combination of likelihood and severity of impact of hazard and hazardous events and which are present or may arise in the context of the use of potable water installations.

The Water Safety Plan described in this document is based on the principles of process-oriented risk management outlined in EN 15975-2 for potable water supply systems and it supports the European drinking water directive 2020/2184/EU [1].

1 Scope

This document describes a method for the analysis, evaluation and management of risks that exist or may arise from the use of potable water installations within buildings and, for certain purposes, outside buildings but within the premises. Water Safety Plans for potable water supply systems are excluded from the scope of this document.

The document is addressed to all organisations and other stakeholders which are responsible to provide potable water within a safe potable water installation inside buildings and outlined in EN 806, EN 1717 and outlined in national regulations.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 806-1, *Specifications for installations inside buildings conveying water for human consumption - Part 1: General*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 806-1 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at https://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp

3.1
Water Safety Plan
approach to ensure the safety of potable water through the use of a comprehensive risk assessment and risk management that encompasses all steps in water supply from catchment to consumer. For the purpose of this technical report, WSP is limited to potable water installations within buildings and, for certain purposes, outside buildings but within the premises

[SOURCE: EN 806-1, definition Figure 1]

3.2
likelihood of occurrence
chance of a hazardous event happening, whether defined, measured or determined objectively or subjectively, qualitatively or quantitatively, and described using general or mathematical terms (such as a probability or a frequency over a given time period)

3.3
building
structure that includes rooms, can be entered and serves the stay and residence of people, animals or the storage of things. It includes also structures intended for commercial and industrial uses

3.4
hazard
biological, chemical, physical or radiological agents in water, or condition (aerosol; steam etc.) of water, with the potential to cause harm to public health

Note 1 to entry: Condition includes quantity.

3.5
hazard analysis
systematic identification of hazards to human health and of events or situations that may lead to the occurrence of a hazard to human health from a potable water installation, taking into account:

— The description of the potable water installation.

— The observations made during the site visit.

— The identified deviations from the legal and normative requirements.

— The other knowledge about the water quality, the potable water installation and its use.

— The laboratory results and their local correlation

3.6
hazardous event
introduction of hazards to potable water installations, or fails to remove them from the potable water installation

3.7
corrective action
action to eliminate the cause of a non-conformity (non-fulfilment of a nominal condition[1]) and to prevent recurrence

3.8
risk control measure
Any action and activity that can be used to prevent or eliminate a hazard or reduce it to an acceptable level

3.9
risk
combination of the likelihood of occurrence of a hazardous event and the severity of impact if the hazard occurs

3.10
severity of impact[2]
level of extent or severity of the impact on human health and/or safety of supply from the potable water installation

3.11
potable water
water suitable for human consumption

Note 1 to entry: The water may also be used for washing, cooking and sanitary purposes.

Note 2 to entry: Additionally conforming to the relevant regulations based on EU directives.

1 See EN 15975-2, 4.6.5.
2 See EN 15975-2, Table A.2.

3.12
potable water installation
pipework, fittings and appliances which are installed between the taps that are normally used for water intended for human consumption in both public and private premises and the distribution network, but only if they are not in the responsibility of the water supplier, in its capacity as a water supplier, under the relevant national law

3.13
validation
obtain evidence, assessment and approval of the capability of the current or proposed control measures

3.14
verification
routine confirmation, through the provision of objective evidence, that the potable water supply system is delivering water in accordance with the set objectives and that the risk management approach is effective

3.15
inventory documentation
existing technical documentation of the potable water installation

3.16
piping scheme
summary technical presentation/drawing of the potable water installation

4 Symbols and abbreviations

Table 1 — Abbreviation

Abbreviation	Meaning
PWC	Potable water cold
PWH	Potable water hot
PWH-C	Potable water hot – Circulation

5 Modules and process of the WSP

5.1 Flowchart and elements of the Water Safety Plan

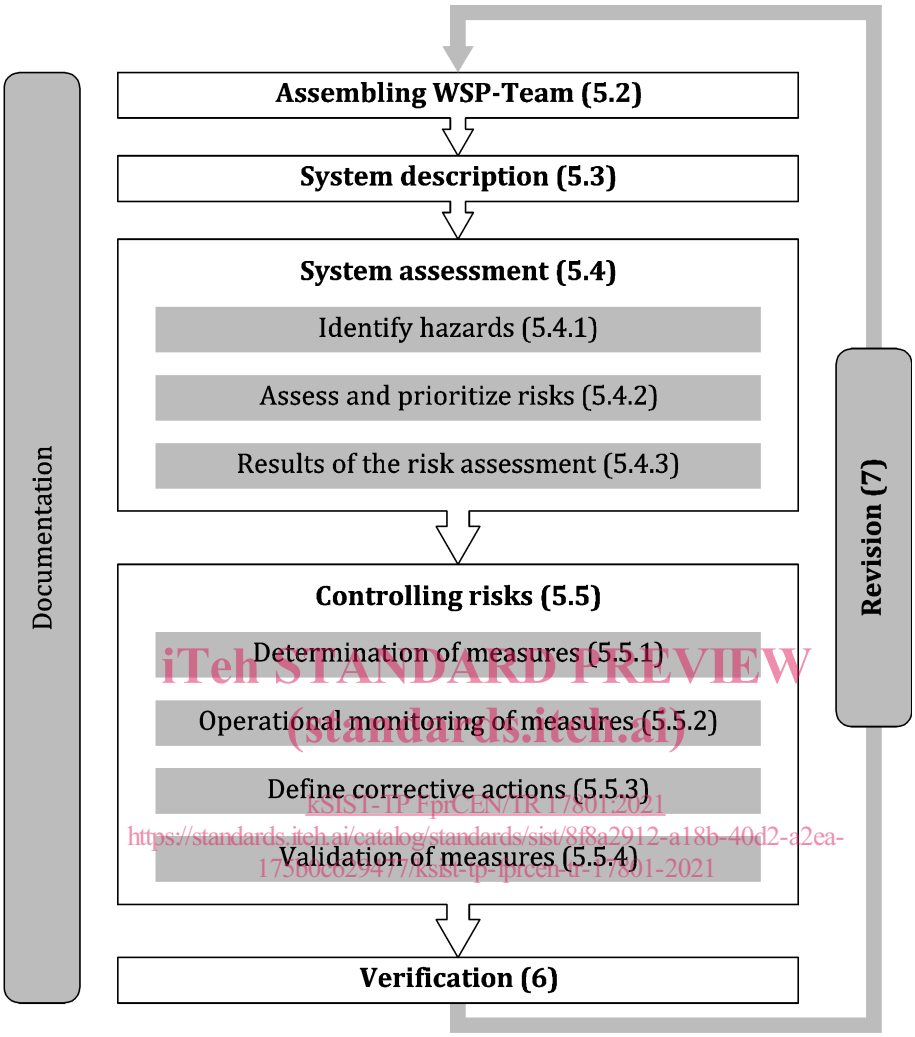

Figure 1 — Overview of modules of the WSP approach

5.2 Assembling WSP-Team

Assemble a WSP team is the first step of the WSP concept.

The WSP team should have a team leader who coordinates the team and its tasks. Any part playing a role in the water system shall be invited to join the WSP team. Depending on building members can be e.g.:

— Planner, designer

— Installer, contractor

— Operator

— Maintainer

— Building administrator

— Facility manager

— Safety manager

— Owner, investor

— Hygiene responsible

— Representatives of the responsible health authorities

The interdisciplinary team should have adequate knowledge of the building's potable water installation, appropriate technical and hygienic expertise and be responsible for the development and implementation of the WSP steps.

5.3 System description

5.3.1 Technical description

An essential element of the system description is a technical description of the entire potable water installation including the actual operating conditions since commissioning. This is made possible by a combination of preliminary talks, inspection of the inventory documentation and site inspection with an assessment of the structural conditions and operating modes. This makes it possible to identify hazards and hazardous events.