SLOVENSKI STANDARD
SIST-TP CWA 17974:2023

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Osnovni program usposabljanja na področju kemične, biološke, radiološke in jedrske varnosti (CBRN) za prve posredovalce pomoči in zdravstveno osebje, vključno s kliničnim osebjem

Basic CBRN training curriculum for first responders and medical staff including first receivers

CBRN-Schulungslehrplan für Ersteinsatzkräfte und medizinisches Personal, einschließlich Klinikpersonal

Ta slovenski standard je istoveten z: **CWA 17974:2023**

ICS:

03.100.30	Vodenje ljudi	Management of human resources
11.020.99	Drugi standardi v zvezi z zdravstvom na splošno	Other standards related to health care in general

SIST-TP CWA 17974:2023 **en,fr,de**

CEN WORKSHOP AGREEMENT

CWA 17974

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English version

Basic CBRN training curriculum for first responders and medical staff including first receivers

This CEN Workshop Agreement has been drafted and approved by a Workshop of representatives of interested parties, the constitution of which is indicated in the foreword of this Workshop Agreement.

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

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European foreword

This CEN Workshop Agreement (CWA 17974:2023) has been developed in accordance with the CEN-CENELEC Guide 29 "CEN/CENELEC Workshop Agreements – A rapid prototyping to standardization" and with the relevant provisions of CEN/CENELEC Internal Regulations - Part 2. It was approved by a Workshop of representatives of interested parties on 2022-10-25, the constitution of which was supported by CEN following the public call for participation made on 2022-03-02. However, this CEN Workshop Agreement does not necessarily include all relevant stakeholders.

The final text of this CEN Workshop Agreement was provided to CEN for publication on 2023-02-02.

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Introduction

Chemical, biological, radiological and nuclear (CBRN) agents may be released as a result of an accident or intentional act. For example, a rail or road accident with a truck carrying chemicals might be considered accidental whereas a release with intent to cause harm for example, by terrorist actors might be considered intentional.

"…there are credible indications suggesting that terrorist groups might have the intention of acquiring CBRN materials or weapons and are developing the knowledge and capacity to use them."[1]

First responders shall be prepared, and their needs for training must be addressed so that they might perform their tasks in a safe and efficient manner.

This Agreement contributes to the improved awareness of potential CBRN threats in the connection with accidental and/or antagonistic incidents for professionals.

This CWA has been developed in the context of the MELODY project, where an overview was created of existing CBRN-related training in European countries and the training needs of emergency response organisations in Europe was analysed. Based on this gaps & needs analysis, a harmonized curriculum was drafted and iteratively developed. Pilot courses were run for first responders and their trainers. CBRN experts from across Europe tested, evaluated and finally validated the proposed curriculum, which served as the basis for this CEN Workshop Agreement.

This CWA aims to capitalize the main results of the project and share with the CBRN community a reference programme to train practitioners for CBRN risks. This CWA is therefore intended to be used by training centers offering in their catalogue trainings and provides a basis to elaborate a training programme to be customized to the audience of the training.

The training audience includes but is not limited to: Dispatch Officer, Fire Brigade, Police – Police officer, Ambulance Services, Emergency Medical Services and general practitioner. It represents a diversity of profiles and occupations in the field of CBRN with different educational curriculum. Depending on the pre-existing knowledge of the trainees and their background, the learning objectives proposed in this CWA will may be adapted to the different target groups. The crosses mentioned in Table A.1 (Annex A) are indicative and shall be adapted to the needs and the national / regional context.

[1] https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A52017DC0610

1 Scope

This Agreement describes the minimum requirements for training to constitute basic chemical, biological, radiological and nuclear (CBRN) awareness for professionals. Typically (but not exclusively), professionals means those involved in emergency response, first responders and first receivers. Examples of these are dispatch officers, ambulance, police and fire & rescue personnel, emergency medical staff at hospitals or healthcare centres and general practitioners.

The basic concept of this agreement was developed by members of the EU-funded project MELODY (2018-2022, Internal Security Fund Police, contract 814803) aimed at developing a harmonised curriculum for such training; this CEN Workshop Agreement builds on that concept with input from other industry professionals.

The Agreement provides a base-line for training content, learning objectives as well as describing potential training methods and the minimum competences considered appropriate to deliver the training.

This Agreement is addressed towards those entities who on national, regional or local level are responsible for vocational training of staff working in emergency response capacities and are likely to need basic knowledge of CBRN incidents.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the terms and definitions given in "EN 17173:2020 European CBRNE glossary" apply.

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

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

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

3.1
active decontamination
employment of chemical, biological or mechanical processes to remove or neutralize chemical, biological or radioactive materials

Note 1 to entry: Source: EN 17173:2020 European CBRNE glossary

3.2
CBRN substances
chemical, biological, radiological agents and nuclear material

Note 1 to entry: Source: EN 17173:2020 European CBRNE glossary

3.3
dispersion
spread of radioactive particles, chemical substances or biological agents

Note 1 to entry: Source: EN 17173:2020 European CBRNE glossary

3.4
hazard assessment
determination of whether hazards for health, equipment, infrastructure or environment are present or are likely to be present

Note 1 to entry: Source: EN 17173:2020 European CBRNE glossary

3.5
hazard avoidance
development and adjustment of plans, especially in regard to the deployment and movement of units, calculated to avoid or minimize risks of exposure to chemical, biological or radiological hazards by area marking, movement control, route planning and relocating measures

Note 1 to entry: Source: EN 17173:2020 European CBRNE glossary

3.1 Symbols and abbreviations

CBRN: Chemical, biological, radiological and nuclear

DIM: Detection, Identification and Monitoring

PPE: Personal protective equipment

4 Essential Modules & Learning Objectives

The Basic CBRN training curriculum consists of seven training modules over three functional levels: (basic) CBRN knowledge (modules 1-3), the operational level (module 4-6), and tactical level (module 7).

For each module of the CBRN training curriculum several learning objectives have been formulated, following Bloom's Revised Taxonomy[2] , and these are listed in Table A.1 (Annexe A).

The first two modules of the curriculum cover the basics and therefore contain learning objectives corresponding with the first two levels of Bloom's taxonomy: remember and understand. It is important that after these modules trainees can recognize and recall the information. This also applies to module 3 (CBRN extras).

Further in the curriculum higher cognitive levels of Bloom's taxonomy such as 'recognize how to carry out' and 'recognize how to apply' are adopted in the learning objectives and are trained by means of practical training, scenarios and table top exercises (modules 4-7), especially in module 5 (Risk assessment and hazard avoidance (3.5)) and module 6 (Task specific response). Because module 7 (Response awareness at the incident scene, improve interagency collaboration) aims to improve interagency collaboration between the different first responder services present at the incident scene, trainees will need to become familiar on how the response to CBRN incidents is organized and which organizations will become involved. A table top exercise will be the training method that is suitable for this.

4.1 Module 1 - CBRN terminology

This module explains what CBRN is. It contains definitions, the difference between accidents and attacks, and what the letters of CBRN stand for. The aim of this module is for all first responders to use the same terminology for effective communication.

[2] https://www.bloomstaxonomy.net/

4.1.1 Learning Objectives

— To recognize CBRN terminology (to be able to speak a common language)

4.2 Module 2 - CBRN Basics

Module 2 introduces the trainees to the general principles of CBRN, aiming for the trainees to be able to recognize a potential CBRN threat and recall how to stay safe. The 'CBRN basics' does not contain any practical training.

4.2.1 Learning Objectives

— To recognize the different groups of agents, their features and effects and list some relevant examples of incidents

— To recognize a possible release and to summarize the different routes of dispersion

— To recognize potential sources of CBRN agents, signs of dangerous goods, and improvised production facilities.

— To recall safe arrival procedures and basic safety in the field

4.3 Module 3 - CBRN Extras

More in-depth theoretical knowledge will be gained when studying the optional module 3 'CBRN extras'. This module explains advanced information on C, B, R and N agents and provides an overview of historical use of CBRN agents and actual incidents. Furthermore, it addresses social, psychological & ethical issues.

4.3.1 Learning Objectives

— To describe historical, ethical, sociological and scientific aspects of CBRN

4.4 Module 4 - First alert

Module 4 goes into more depth and focuses on first alert. The trainees learn how to identify possible CBRN releases by asking the right questions to the person who makes the call. It includes issues such as meteorology, symptoms, and knowing which information to share with the chain of command.

4.4.1 Learning Objectives

— To recognize signs of a potential CBRN release and (initiate first) respond(ers)

4.5 Module 5 - On site risk assessment, hazard avoidance and medical care

In module 5 the topics become more specific for different professions. First responders active at the incident scene should be able to perform a risk assessment on scene, having in mind the information possibly provided to them by the dispatch services prior to or during moving to the incident scene. Emergency medical personnel and general practitioners will not move towards the scene but might be confronted with casualties of the incident that either self-refer to the medical facilities or are brought there by ambulances. Medical personnel should be able to estimate the risks involved in receiving and treating such potentially contaminated patients; be capable of developing a safe course of action. This module addresses all the before mentioned topics.

4.5.1 Learning Objectives

— To recognize how to carry out an on-site risk assessment, zoning of the area, and isolation and registration of victims

— To recognize how to carry out your work without forensic disruption of the scene

— To recall some different DIM techniques

— To recognize some different types of PPE and recognize how to carry out some basic techniques

— To recognize how to carry out basic decontamination procedures for people and domestic animals.

— To recognize how to apply appropriate medical care towards patients involved in a CBRN incident

4.6 Module 6 - Task specific response

In module 6 the trainees learn about task specific responses. The topics are specified for the dedicated target group. These topics go into more depth and contain practical training elements, where theoretical knowledge is applied.

4.6.1 Learning Objectives

— To differentiate a possible CBRN incident (from normal incident) and to carry out appropriate procedures & protocols

— To identify possible CBRN threats and to mitigate the effects

— To familiarize with and carry out triage and provide medical care in relation to CBRN scenario's

4.7 Module 7 - Improve interagency collaboration

The last module aims to improve interagency collaboration between the various emergency response services and to create response awareness at the incident scene. This module familiarizes trainees with the structure and organisation of CBRN incident management, i.e. which organizations will become involved and how they will work together. This also includes insight into the dependencies between the response organizations and therefore acts at a tactical level.

4.7.1 Learning Objectives

To reflect on the tasks, responsibilities and capabilities of other agencies and initiate interagency collaboration

5 Delivery suggestions

Depending on the cognitive level of the learning objective in the basic CBRN training curriculum a range of training methods applies, from theoretical (e-learning, classroom presentations, test questions) to practical training (scenario discussions, table top exercises, hands-on training); all chosen to create opportunities for learning.

Classroom training is suggested to be part of the curriculum for all learning objectives of the seven modules. It is important that after delivering the classroom presentation, trainees can recognize and recall the information. Classroom presentations generally consist of a series of PowerPoint presentations that will be required to cover the learning objectives. All classroom lectures should be adapted to the national context, indicating that national procedures and examples are included, ensuring recognition by trainees.

In the first two modules, trainees will be trained in the very basic knowledge on the general principles of CBRN, aiming the trainees to recognize a potential CBRN threat and recall how to act. In case of limited time available for on-site training, e-learning might replace the classroom lectures. In this way trainees can perform a self-study prior to on-site training, ensuring a basic level of CBRN knowledge with all