Technical Report

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Large outdoor fires and the built environment — Global overview of different approaches to standardization

Grands incendies extérieurs et environnement bâti — Vue d'ensemble des différentes approches en matière de normalisation

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Contents

Page

Foreword ... **iv**
Introduction ... **v**
1 Scope ... **1**
2 Normative references ... **1**
3 Terms and definitions ... **1**
4 Ignition scenarios ... **3**
5 Regulation principle and strategies ... **4**
5.1 Japan ... 4
5.2 California State Building Code (US) ... 4
5.3 NFPA 1144, Standard for Reducing Structure Ignition Hazards from Wildland Fire (US) ... 5
5.4 International Wildland Urban Interface Code (IWUIC) ... 5
5.5 France ... 5
5.6 Australia ... 5
6 Standard tests approaches ... **5**
6.1 Overview ... 5
6.2 Approach for roofing assemblies ... 6
6.2.1 Japan ... 6
6.2.2 North America ... 6
6.2.3 France ... 6
6.2.4 Australia ... 6
6.3 Approach for exterior walls and facades ... 7
6.3.1 Japan ... 7
6.3.2 North America ... 8
6.3.3 France ... 8
6.3.4 Australia ... 8
6.4 Other building elements ... 9
6.4.1 Vents ... 9
6.4.2 Decks ... 9
6.4.3 Eaves ... 9
6.4.4 Windows ... 10
7 Additional provisions ... **10**
7.1 Reaction-to-fire — California ... 10
7.2 Reaction-to-fire — France ... 10
8 Summary of scenarios and tests ... **10**
Annex A (informative) **Precise description of tests for roof performance defined in the European Standard CEN/TS 1187** ... **13**
Bibliography ... **16**

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 92, *Fire safety*.

This second edition cancels and replaces the first edition (ISO/TR 24188:2022), which has been technically revised.

The main changes are as follows:

— various term entries in Clause 3 have been modified;

— Figure 2 has been replaced with a new diagram;

— the Bibliography has been updated.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

Large outdoor fires have the potential to negatively impact the built environment.

Examples of such fires are:

— wildland-urban interface (WUI) fires (wildland fires that spread into communities; this type of fire has become a global problem);

NOTE Once a WUI fire reaches a community, a large urban fire can develop.

— post-earthquake fires (large urban fires that potentially occur after an earthquake);

— tsunami-generated fires (fires potentially generated from tsunamis);

— volcano-generated fires (fires potentially generated from volcanic activity); and

— fires that occur in informal settlements.

This document provides an overview of approaches to standardization for lessening the destruction on the built environment caused by such fire exposure. Some of the test methods outlined in this document have been developed in the context of building fires and extrapolated to external fire exposures. Evacuation is not included as there are no known approaches to standardization as the present time.

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Large outdoor fires and the built environment — Global overview of different approaches to standardization

1 Scope

This document provides a review of global testing methodologies related to the vulnerabilities of buildings from large outdoor fire exposures. It also provides information on land use management practices.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

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

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

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

3.1.1
bushfire
unplanned fire in a vegetated area, as opposed to an urban area

Note 1 to entry: Used primarily, but not exclusively, in Australia, New Zealand and Africa.

Note 2 to entry: For further information, see Reference [42].

3.1.2
direct flame contact
flame impinging on building systems and materials

Note 1 to entry: For further information, see Reference [43].

3.1.3
evacuation
dispersal or removal of people from dangerous areas and their arrival at a place of relative safety

Note 1 to entry: For further information, see Reference [44].

3.1.4
post-earthquake fire
fire which occurs after an earthquake

3.1.5
firebrand
airborne object capable of acting as an ignition source and carried for some distance in an airstream

Note 1 to entry: For further information, see Reference [45].

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