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

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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 documents 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*.

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.

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 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. Evacuation is not included as there are no known approaches to standardization as the present time.

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. Some of the test methods outlined in this document have been developed in the context of building fires and extrapolated to external fire exposures.

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: It is likely that the term was first used in South Africa and is possibly derived from the Dutch word 'bosch' meaning uncultivated land. In Australia the term was first used in the first half of the 19th century. The term passed into legislation in the first half of the 20th century, first in the Australian Capital Territory (Bushfire Act, 1936), Western Australia (A Bush Fires Act, 1937) and New South Wales (Bush Fires Act, 1949).

Note 3 to entry: Definition adapted from Reference [42].

3.1.2
direct flame contact
flame impinging on building systems and materials

Note 1 to entry: Direct flame contact is one of the three structure ignition pathways, together with firebrands and radiant heat.

Note 2 to entry: The flames can come either from the main wildfire flames, from burning elements and ornamental vegetation surrounding structures, or from adjacent structures.

Note 3 to entry: Definition adapted from Reference [42].

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: Definition taken from Reference [42].