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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 44186-2024

Fixed compressed air foam fire extinguishing system

固定式压缩空气泡沫灭火系统

(English Translation)

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References

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting is required.

This document is modified to adopt ISO 7076-5:2014 "Fire-fighting foam fire-fighting systems Part 5: Fixed compressed air foam fire-fighting systems equipment".

Compared with ISO 7076-5:2014, this document has the following structural adjustments.

3.3~3.17 corresponds to 3.5~3.19 in ISO 7076-5:2014; -Appendix B corresponds to Appendix A in ISO 7076-5:2014; -Appendix D corresponds to Appendix B in ISO 7076-5:2014.-this document has many technical differences compared to ISO 7076-5:2014.

A list of these technical differences and their causes is given in Appendix A.

The following editorial changes were made to this document.

To coordinate with the existing standards, the name of the standard is changed to "Fixed Compressed Air Foam Fire Extinguishing System"; -the "gas-liquid volume ratio is expressed as the ratio of 1 part of foam mixture to x parts of air (1.x)" in Note 3.2 of ISO 7076-5:2014 Corrected to "The gas-liquid volume ratio is expressed as the ratio of x parts of air under standard conditions to 1 part of foam mixture (x.1)";

Added Appendix A (Informative) "List of technical differences between this document and ISO 7076-5:2014 and their reasons". -

1 Scope

This document specifies the technical requirements, test reports, use and maintenance of compressed air foam fire extinguishing systems for indoor, outdoor or indoor and outdoor use.

Care instructions, markings, describing the test methods.

This document applies to the design, manufacture and inspection of fixed compressed air foam fire extinguishing system products for industrial sites and civil buildings.

This document does not apply to the technical safety of the design and manufacture of drive devices such as air compressor units, compressed gas cylinder units, and pump units.

Require.

NOTE 1: This document does not include special hazards arising from abnormal use of compressed

air foam fire-fighting systems.

NOTE 2 This document does not include hazards associated with any type of mechanical, electrical, hydraulic, pneumatic and other equipment, which shall be dealt with in accordance with the appropriate standards for such equipment.

reason.

NOTE 3: This document does not include hazards caused by noise from compressed air foam fire-fighting systems.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies.

in this document.

GB/T 2421 Environmental Testing Overview and Guidelines (GB/T 2421-2020, IEC 60068-1:2013, IDT) GB.20031 General technical requirements for foam fire extinguishing systems and components GB 24541 Hand protection gloves for mechanical hazards GB/T 25208-2010 Environmental test methods for fixed fire extinguishing systems GB 50151 Technical Standard for Foam Fire Extinguishing Systems

3 Terms and definitions

The following terms and definitions apply to this document.

air delivery rate

The volume of air injected into a fixed compressed air foam system under standard conditions per unit time.

Note: Inside the system, the volume of air will be compressed according to the system internal pressure; once it leaves the system and is released from the nozzle into the atmosphere, the air will expand again.

Swell to normal volume.

Air/foam solution volume ratio the volume ratio of air to foam mixture injected into a fixed compressed air foam system under standard conditions.

Note: The gas-liquid volume ratio is expressed as the ratio of x parts of air under standard conditions to 1 part of foam mixture (x.1).

compressed air foam; CAF Homogeneous foam produced by mixing air or nitrogen, water and foam liquid under a certain pressure.

compressed air foam generating method A method of forming compressed air foam by using a mixer to mix pressurized air or nitrogen, water and foam liquid in the correct proportion.