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

GB 20031-2024

Replacing GB 20031-2005

Foam fire extinguishing equipment

泡沫灭火设备

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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. This document

replaces GB.20031-2005 "General Specifications for Foam Fire Extinguishing Systems and Components". In addition to structural adjustments and editorial changes, the main technical changes are as follows:

- a) The scope has been changed (see Chapter 1, Chapter 1 of the.2005 edition);
- b) The model compilation requirements have been changed (see Chapter 4, 4.2 of the.2005 edition);
- c) Added requirements for metering injection type proportion mixing devices (see 5.1.4);
- d) Added requirements for mechanical pump-type proportioning mixing devices (see 5.1.5);
- e) The requirements for foam monitors have been changed (see 5.3.1, 5.2.6 of the.2005 edition);
- f) The requirements for foam guns have been changed (see 5.3.2, 5.2.7 of the.2005 edition);
- g) The static balance requirements for high-multiplicity foam generator impellers have been deleted (see 5.2.9.6 of the.2005 edition);
- h) Added general requirements for unitary foam fire extinguishing equipment (see 5.4.1);

1 Scope

GB 20031-2024 is the Chinese product standard for foam fire extinguishing equipment: the proportioners, foam concentrate tanks, bladder tanks, foam makers, foam chambers, high back pressure generators, foam monitors and the rest of the hardware that puts a fire in a fuel tank, a hangar or a chemical plant out. It is a mandatory standard and the basis of the type approval such equipment needs before it can be installed in China. The standard sets the classification and the model designation of each type of device, the requirements on the materials and on the corrosion protection, which matter because the equipment sits idle for years in contact with foam concentrate and must work first time, the performance requirements for each device including the proportioning accuracy over the flow range, the expansion ratio and drainage time of the foam produced, the pressure loss and the flow characteristics, the strength and tightness, and the environmental and durability requirements, together with the test methods, the inspection rules and the marking, packaging, transport and storage. The 2024 edition replaces GB 20031-2005.

This document defines the terms and definitions of foam fire extinguishing equipment, and specifies the model compilation, parameter series, requirements, inspection rules, packaging, transportation and storage, and the corresponding test methods are described. This document applies to foam proportioning devices, foam generating devices, foam

spraying devices, unitary foam fire extinguishing devices and related accessories. Foam fire extinguishing equipment such as devices. This document does not apply to foam spray fire extinguishing equipment.

2 Normative references

The contents of the following documents constitute 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 to This document.

GB/T 150.1 Pressure vessels Part

3 Water mist nozzle

GB 5135.6 Automatic sprinkler fire extinguishing system Part

6 General valve

GB 5135.11 Automatic sprinkler systems Part

11 Grooved pipe fittings GB 6245 Fire Pump GB 6246 Fire hose

GB 8109-2023 Trolley fire extinguisher

GB/T 9124.1 Steel pipe flanges Part 1: PN series

GB/T 9124.2 Steel pipe flanges Part