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

GB 14444-2025

Replacing GB 14444-2006

Safety technical requirements for spray booth

喷漆室安全技术要求

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting. This document supersedes GB 14444-2006 "Safety Regulations for Painting Operations - Technical Specifications for Safety of Spray Painting Booths" and is consistent with GB 14444-2006. Compared to previous versions, aside from structural adjustments and editorial changes, the main technical changes are as follows:

- a) The scope of application has been changed, and the scope of reference for implementation has been removed (see Chapter 1, Chapter 1 of the.2006 edition);
- b) The terms "spray booth," "leveling zone," and "interference airflow" have been removed (see 3.2, 3.4, and 3.6 of the.2006 edition);
- c) The definitions of the terms "spray booth," "spray area," "controlled airflow," "dry spray booth," and "wet spray booth" have been changed (see 3.1, 3.2,...). 3.4, 3.6, 3.7 (and 3.1, 3.3, 3.5, 3.8, 3.9 in the.2006 edition);
- d) The terms and definitions for "paint mist collection device," "electrostatic spraying chamber," and "dynamic and static pressure chamber" have been added (see 3.3, 3.8, 3.9, and 3.10);
- e) The extent of the paint spraying area has been changed (see 4.1, 4.2 in the.2006 edition);

f) The requirement to install an automatic fire suppression system in the leveling room has been removed (see

5.9 in the.2006 edition);

g) The example of the exhaust volume calculation method has been removed (see section 8.1 of the.2006 edition);

1 Scope

GB 14444 is the companion to GB 14443 and covers the spray booth, where atomised paint and solvent vapour are present together with the ignition sources an electrical installation inevitably provides. It sets the general requirements, the equipment and facilities - ventilation and air velocity, filtration, electrical equipment, lighting and static control - the operation and maintenance rules and the verification methods, and its normative annexes define the explosion hazard zones around booths and open coating containers and give worked examples of compliant lighting fittings inside and outside the spray area. Issued on 31 October 2025, in force since 1 August 2026, replacing GB 14444-2006. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the edition it replaces are taken from there. The clause text, the tables and the numeric limits are not reproduced on this page - they are in the document itself, which is delivered in full in English translation.

This document specifies the general requirements, structure and materials, ventilation system, and electrical equipment for spray booths using flammable and combustible liquid paints. Safety technical requirements for equipment, anti-static systems, operation and maintenance, etc., are described, along with verification methods. This document applies to the design, manufacture, installation, commissioning, inspection, operation, and maintenance of spray booths using flammable or combustible liquid coatings.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB 4053.1 Safety requirements for fixed steel ladders and platforms - Part

3 Terms and Definitions

The terms and definitions defined in GB/T 14441 and the following terms and definitions apply to this document.

3.1 spraybooth A fully or semi-enclosed non-building enclosure specifically designed for spraying liquid coatings.

3.2 spraying area Areas containing flammable or combustible vapors, paint mist, or accumulated combustible residues due to painting operations.

4 Linear beam combustible gas detectors for industrial and commercial applications

GB 50016 Code for Fire Protection Design of Buildings

GB 50058 Design Code for Electrical Installations in Explosive Atmospheres

GB/T 50087 Design Code for Noise Control in Industrial Enterprises

GB 50116 Code for Design of Automatic Fire Alarm Systems

GB 50140 Code for Design of Fire Extinguisher Configuration in Buildings

GB/T 50493 Design Standard for Detection and Alarm Systems of Combustible and Toxic Gases in Petrochemical Industry

GB 55037 General Code for Fire Protection of Buildings GBZ