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

GB 31094-2014

**Safety rules for the construction and installation of lifts for
explosive atmospheres
(English Translation)**

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Foreword

All technical contents of this standard is mandatory.

This standard was drafted in accordance with GB/T 1.1-2009 rules.

This standard by the National Standardization Technical Committee elevator (SAC/TC196) and focal points.

Introduction

0.1 According to GB/T 15706, this standard was C standard.

0.2 according to the standard design and manufacture of explosion-proof elevator installation is also subject to GB 7588, GB 21240 or GB 25194 requirements, if present Standard provisions and requirements of these standards is not the same, give priority to this standard.

0.3 standard is based on the following assumptions.

a) building structures meet the following requirements.

1) to prevent rain, snow and water from entering the explosion-proof elevator shaft and

machinery space;

2) prevention of toxic and corrosive gases into the explosion of the elevator shaft and machinery space;

3) the machine space with good ventilation;

4) Buildings with lightning measures;

Refractory grade 5) in line with the architectural design of a building fire code requirements.

b) have agreed on the following issues between the owners or customers and suppliers.

1) the use of explosion-proof elevator;

2) Explosion-proof elevator conditions;

3) and civil engineering problems;

4) within the hoistway and machine configuration space requirements for explosion-proof power facilities;

5) matters relating to the rescue with explosion-proof elevator;

6) within the explosion-proof elevator handling of safe work practices.

Explosion-proof elevator manufacturing and installation of safety norms

1 Scope

1.1

GB 25285.1-2010 standard specifies defined in explosive gas atmospheres 1 and Zone 2 and Zone 21 explosive dust situations, Additional safety guidelines for use in Zone 22 explosion elevator manufacturing and installation to be followed.

1.2

This standard applies to the rated speed of not more than 1m/s, power-driven hoisting ceremony, compulsory and hydraulic elevator explosion-proof elevator Design, manufacture, installation, inspection and maintenance.

1.3

In the special case. Explosion elevator (such as inclement weather conditions and seismic conditions, etc.) used in addition to meeting the requirements of this standard, the sit Taking into account the special requirements.

1.4

This standard does not apply to.

Explosion lift a) GB 25285.1-2010 Zone 0 explosive gas atmospheres defined and

combustible dust for use in zone 20 Manufacture and installation;

b) produced by the explosion of combustible material other oxidants react with atmospheric oxygen in addition to outside, or by other hazardous reactions, as well as non-atmospheric conditions Members produce elevator explosion hazardous area use;

c) Prior to implementation of this standard manufacturing and installation of explosion-proof elevator.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB 3836.1-2010 explosive atmospheres - Part 1. General requirements for equipment GB 3836.2-2010 explosive atmospheres - Part 2. the flameproof enclosure "d" protection equipment GB 3836.3 explosive atmospheres - Part 3. the increased safety "e" protection equipment GB 3836.4-2010 Explosive atmospheres - Part 4. the intrinsically safe "i" protection equipment GB 3836.5 Electrical apparatus for explosive gas atmospheres - Part 5. type pressurized enclosure "p" GB 3836.6 Electrical apparatus for explosive gas atmospheres - Part 6. Oil - immersion "o" GB 3836.8 Electrical apparatus for explosive gas atmospheres - Part 8. "n" electrical apparatus GB 3836.9 Electrical apparatus for explosive gas atmospheres - Part 9. Encapsulation "m" GB 3836.13 Explosive atmospheres - Part 13. Equipment repair, overhaul, repair and renovation GB 3836.15-2000 Electrical apparatus for explosive gas atmospheres - Part 15. Electrical installations in hazardous locations (except coal mines) GB 3836.16 Electrical apparatus for explosive gas atmospheres Part 16. Electrical installations inspection and maintenance (other than mines) GB 3836.18 Explosive atmospheres - Part 18. Intrinsically safe systems GB/T 7024-2008 elevators, escalators, moving walkways term GB 7588-2003 elevator manufacturing and installation of safety norms GB 12476.1-2013 combustible dust Electrical Equipment Part 1. General requirements GB 12476.2 combustible dust electrical equipment - Part 2. Selection and installation GB 12476.4 combustible dust electrical equipment Part 4. Intrinsic safety "iD" GB 12476.5 combustible dust electrical equipment - Part 5. Housing protection type "tD" GB 12476.6 combustible dust electrical equipment - Part 6. protective encapsulation "mD" GB 12476.7 of combustible dust electrical equipment - Part 7. protective positive pressure "pD" GB/T 18775 elevators, escalators and moving walkways maintenance specifications GB 21240-2007 hydraulic elevator manufacturing and installation of safety norms GB/T 24478-2009 elevator hoisting machine GB 25194-2010 debris elevator manufacturing and installation of safety norms GB 25285.1-2010 explosive atmospheres explosion prevention and protection - Part 1. Basic Principles and Methods GB 25286.1-2010 non-electrical equipment for explosive atmospheres - Part 1. Basic method and requirements GB 25286.2 Non-electrical equipment for explosive atmospheres - Part 2. limiting shell type "fr" GB

25286.3 Non-electrical equipment for explosive atmospheres - Part 3. flameproof enclosure type "d" GB 25286.5 Non-electrical equipment for explosive atmospheres - Part 5. Security-type structure "c" GB 25286.6 Non-electrical equipment for explosive atmospheres - Part 6. Control type ignition source "b" GB 25286.8 Non-electrical equipment for explosive atmospheres - Part 8. liquid immersion "k" GB 50257 electrical equipment installation engineering explosion and fire hazard electrical equipment installation and acceptance Electrical equipment - Part 28 IEC 60079-28 Explosive atmospheres. radiation protection optical transmission systems and equipment (Explosiveatmospheres-Part 28. Protectionofequipmentandtransmissionsystemsusingopticalradiation) EN13463-1:2009 potentially explosive atmospheres using non-electrical equipment Part 1. Basic method and requirements (Non-electricalequipmentforuseinpotentiallyexplosiveatmosphere-Part 1. Basicmethodandrequirements)

3 Terms and Definitions

GB 3836, GB 12476, GB 25285 and GB 25286 series of standards, GB/T 7024-2008, GB 7588-2003, GB 21240-2007 and GB 25194-2010 defined in the following terms and definitions apply to this document.

Explosion-proof elevator liftforexplosiveatmospheres by a number of electrical components and non-electrical components, according to a predetermined condition design, manufacture and installation without causing explosive atmosphere surrounding fuel Burning or explosion elevator.

NOTE: rewrite GB/T 7024-2008, the definition of 2.9.

Electrical components electricalelement all or part of the use of power can achieve its intended function of elevator components, such as control cabinets, and other host drive. The sub-standard electrical components Explosion-proof electrical components and other electrical components.

NOTE: rewrite GB 3836.1-2010 defined in 3.14.

Explosion-proof electrical components electricalelementforexplosiveatmospheres the conditions required design, manufacture and installation without causing a fire or explosion explosive atmosphere surrounding electrical components having a risk of ignition.

Non-electrical components non-electricalelement Do not use electricity can reach its intended function of elevator components, such as safety gear, buffers and the like. The standard non-explosion-proof electrical components into non Electrical components and other non-electronic components.

NOTE: rewrite GB 25286.1-2010 defined in 3.7.

Non-explosion-proof electrical parts non-electricalelementforexplosiveatmospheres the conditions required design, manufacture and installation without causing a fire or explosion