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PEOPLE'S REPUBLIC OF CHINA**

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**Explosive atmospheres - Part 35: Classification of areas for
explosive dust atmospheres**

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Foreword

This document was drafted in accordance with the rules in GB/T 1.1-2020 Directives for Standardization - Part 1: Rules for the Structure and Drafting of Standardizing Documents.

This document is Part 35 of GB/T 3836 Explosive Atmospheres. GB/T 3836 has

released the following parts:

- Part 1: Equipment - General Requirements;
- Part 2: Equipment Protection by Flameproof Enclosures "d";
- Part 3: Equipment Protection by Increased Safety "e";
- Part 4: Equipment Protection by Intrinsic Safety "i";
- Part 5: Equipment Protection by Pressurized Enclosure "p";
- Part 6: Equipment Protection by Liquid Immersion "o";
- Part 7: Equipment Protection by Powder Filling "q";
- Part 8: Equipment Protection by Type of Protection "n";
- Part 9: Equipment Protection by Encapsulation "m";
- Part 11: Material Characteristics for Gas and Vapor Classification - Test Methods and Data;
- Part 12: Material Characteristics for Combustible Dusts - Test Methods;
- Part 13: Equipment Repair, Overhaul, Reclamation and Modification;
- Part 14: Classification of Areas - Explosive Gas Atmosphere;
- Part 15: Electrical Installations Design, Selection and Erection;
- Part 16: Electrical Installations Inspection and Maintenance;
- Part 17: Equipment Protection by pressurized Room "p" and Artificially Ventilated Room "v";
- Part 18: Intrinsically Safe Electrical Systems;
- Part 20: Equipment with Equipment Protection Level (EPL) Ga;
- Part 21: Application of Quality Systems for Equipment Manufacture;
- Part 22: Protection of Equipment and Transmission System Using Optical Radiation;
- Part 23: Group I, Category EPL Ma Equipment Intended to Remain Functional in Atmospheres Endangered by Firedamp and / or Coal Dust;
- Part 24: Equipment Protection by Special Protection "s";
- Part 25: Requirements for Process Sealing between Flammable Process Fluids

and Electrical Systems;

---Part 26: Electrostatic Hazards - Guidance;

---Part 27: Electrostatic Hazards - Test;

---Part 28: Non-electrical Equipment for Explosive Atmospheres - Basic Method and Requirements;

---Part 29: Non-electrical Equipment for Explosive Atmospheres - Constructional Safety "c", Control of Ignition Source "b", Liquid Immersion "k";

---Part 30: Equipment and Components in Explosive Atmospheres in Underground Mines;

---Part 31: Equipment Dust Ignition Protection by Enclosure "t";

---Part 32: Intrinsically Safe Systems with Electronically Controlled Spark Duration Limitation;

---Part 33: Equipment in Adverse Service Conditions;

---Part 34: Equipment Assemblies;

---Part 35: Classification of Areas for Explosive Dust Atmospheres.

This document serves as a replacement of GB/T 12476.3-2017 Electrical Apparatus for Use in the Presence of Combustible Dust - Part 3: Classification of Areas where Combustible Dusts are or May be Present. In comparison with GB/T 12476.3-2017, the main technical changes are as follows:

---The density and concentration of dust cloud are added as factors in the consideration of release (see 4.1);

---The requirements for personnel capabilities are added (see 4.3);

---The requirements that consider the rise of dust layers to form dust clouds are added (see Chapter 7);

---EPL is added to the document (see 8.1).

This document adopts the re-drafting method in the modification and adoption of IEC 60079-10-2:2015 Explosive Atmospheres - Part 10-2: Classification of Areas - Explosive Dust Atmospheres.

This document makes the following structural adjustment:

---Appendix A corresponds to Appendix C of IEC 60079-10-2:2015; Appendix B corresponds to Appendix A of IEC 60079-10-2:2015; Appendix C corresponds to Appendix B of IEC 60079-10-2:2015.

The technical differences between this document and IEC 60079-10-2:2015, and the causes for the differences are as follows:

---In terms of Normative References, this document makes certain adjustments with technical differences, so as to adapt to the technical conditions of China.

The adjustments are intensively reflected in Chapter 2 "Normative References".

See the specific adjustments below:

? GB/T 3836.1, which modifies and adopts international standard, is used to replace IEC 60079-0 (see Chapter 3);

? IEC 60079-10-1 and ISO/IEC 80079-20-2 are deleted; the corresponding GB 3836.14 and GB/T 3836.12 are moved to Bibliography.

This document makes the following editorial modifications:

---In order to be consistent with the existing standard series, the title of this document is modified into Explosive Atmospheres - Part 35: Classification of Areas for Explosive Dust Atmospheres;

---The terminological databases maintained by ISO and IEC are added to Chapter 3;

---The incorrect article No. cited in NOTE 1 of 3.9 is deleted;

---The NOTE regarding personnel capabilities in 4.3 is deleted.

Please be noted that certain content of this document may involve patents. The institution issuing this document does not undertake the responsibility of identifying these patents.

This document was proposed by China Electrical Equipment Industry Association.

This document shall be under the jurisdiction of National Technical Committee 9 on Explosion Protected Electrical Apparatus of Standardization Administration of China