

ICS 17.220.20
CCS L04



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

GB/T 44787-2024

**General specification for real-time monitoring system of
electrostatic control parameter**

静电控制参数实时监控系统通用规范

Issued on: October 26, 2024

Implemented on: May 1, 2025

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

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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 is required. Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents. This document is proposed and coordinated by the Ministry of Industry and Information Technology of the People's Republic of China. This document was drafted by: China Electronics Standardization Institute, Shenzhen Kaifa Technology Co., Ltd., Suzhou Tianhua New Energy Technology Co., Ltd., Beijing Oriental Metrology and Testing Institute, Shanghai Maritime University, Sinopec Safety Engineering Research Institute Co., Ltd., Shenzhen Shenzhen Zhongming Technology Co., Ltd., Shenzhen Baiguang Electronic Technology Co., Ltd., China National Petroleum Corporation Safety and Environmental Protection Technology Research Institute Co., Ltd. Dalian Branch of the China Electronics Technology Group Corporation, the 10th Research Institute, Shanghai Anjing Electrostatic Technology Co., Ltd., Zhejiang Yiyuan Electrostatic Technology Co., Ltd. Company, Shenzhen Kaishide Technology Co., Ltd., Huizhou Lianchuangda Electrostatic Equipment Co., Ltd., Guangdong Youke Testing and Certification Co., Ltd., Shanghai Chuangjing Testing Technology Co., Ltd., Shanghai Yangsen Fine Chemical Co., Ltd., Shenzhen Aixin Intelligent Co., Ltd., Dongguan Keyuan Defense Electrostatic Equipment Co., Ltd., Shanghai Best Electronic Engineering Co., Ltd., ZTE Corporation, Taixing Weite New Materials Technology Co., Ltd. Co., Ltd., Shanghai Anti-static Industry Association, the Fifth Electronic Research Institute of the Ministry of Industry and Information Technology, Beijing University of Science and Technology, and the People's Liberation Army Navy Military Medical University. The main drafters of this document are. Cai Lihua, Zhang Haibei, Wang Ronggang, Hu Zijun, Li Xuewen, Wang Shiqiang, Sun Keping, Wang Han, Han Lingling, Sun Lijuan, Dai Liping, Yan Dejin, Li Peng, Zhang Yiyuan, Zhang Wenkui, Yue Fei, Ma Qitian, Zhao Huasheng, Chen Hui, Zhang Hong, Wang Chunyuan, Zhu Xuemei, Li Tao, Zhou Tuo, Zhang Ming, Lai Ping, Wen Xiaolong, Liang Hejuan, Cheng Yulei, Liu Lu, Li Yipeng, Qiao Changjun, and Chen Sixue. General Specifications for Real-Time Monitoring System of Electrostatic Control Parameters

1 Scope

GB/T 44787-2024 is the general specification for systems that monitor electrostatic control parameters in real time. Static control in an electronics plant or a solvent handling area has traditionally been verified by periodic audit - a technician with a meter walking the line once a month - which cannot detect the ionizer that failed the day after the audit or the wrist strap connection that opened intermittently. Continuous monitoring changes that, and needs a specification because it is the alarm behaviour, not the measurement, that determines whether the system is useful or ignored. The standard defines the electrostatic control parameters and their types, the system architecture, the functional requirements - monitoring, alarm, communication, data storage, the management platform, self-diagnosis and other functions - and the performance requirements, with the corresponding test

methods, inspection rules and marking and packaging provisions. It takes effect on 1 May 2025.

This document provides the architecture and types of electrostatic control parameters of the real-time monitoring system for electrostatic control parameters (hereinafter referred to as the "monitoring system"). The functional requirements and performance requirements of the monitoring system are determined, and the corresponding testing methods are described. This document applies to the research and development, design, production, inspection and use of monitoring 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 to This document.

GB/T 37977.51 Electrostatics Part 5-

3 Terms and Definitions

The terms and definitions defined in GB/T 37977.51 and the following apply to this document.

3.1 Electrostatic control parameter A physical quantity that represents the level of electrostatic control. Examples. resistance to ground, surface resistance, electrostatic voltage.

3.2 Real-time monitoring system of electrostatic control parameter A system with the functions of collecting on-site electrostatic control parameters (3.1), uploading data, storing, analyzing, processing, displaying and controlling.

3.3 monitoring terminal In the real-time monitoring system for electrostatic control parameters (3.2), a device used for on-site data acquisition and/or processing.

3.4 management platform In the electrostatic control parameter real-time monitoring system (3.2), it is used to complete system configuration, data storage, data analysis, data processing, data Software with functions such as display.

4 Electrostatic Control Parameters

4.1 Overview Static electricity control is achieved through the following methods.

a) Electrostatic charging control, including. 1) Control the resistivity of materials, resistance of products and other parameters; 2) Control the process and environmental parameters

related to electrification, such as ambient temperature and humidity, movement (flow) rate, and static time;

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