

ICS 29.240.01
CCS F30



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

GB/T 44380-2024

**Terminology for electric equipment condition based
maintenance**

电力设备状态检修通用术语

Issued on: August 23, 2024

Implemented on: August 23, 2024

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

Table of Contents

1 Scope	1
2 Normative references	1
3 Basic terms	1
4 Status Detection	2
5 Status Information	9
6 Status Evaluation	11
8 Maintenance Decision	13
17 Index	18

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. 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 was proposed by the China Electricity Council. This document is under the jurisdiction of the National Technical Committee for Standardization of Condition-Based Maintenance and Online Monitoring of Power Equipment (SAC/TC321). This document was drafted by: China Electric Power Research Institute Co., Ltd., State Grid Zhejiang Electric Power Co., Ltd. Electric Power Research Institute, Chongqing University, Xi'an Jiaotong University, State Grid Jibei Electric Power Co., Ltd. Electric Power Research Institute, State Grid Shandong Electric Power Co., Ltd. Electric Power Science Research Institute Institute of Technology, North China Electric Power University, State Grid Zhejiang Electric Power Co., Ltd. Jinhua Power Supply Company, Baoding Tianwei New Domain Technology Development Co., Ltd., Beijing State Grid Fuda Technology Development Co., Ltd., State Grid Ningxia Electric Power Co., Ltd. Electric Power Research Institute, China Datang Group Science and Technology Research Institute Northwest Electric Power Research Institute, Xi'an Thermal Engineering Research Institute, China Yangtze Power Co., Ltd., China Southern Power Grid Co., Ltd. Research Institute Co., Ltd., State Grid Liaoning Electric Power Co., Ltd. Electric Power Research Institute, Beijing Sifang Relay Protection Automation Co., Ltd., Xi'an XD Switchgear Co., Ltd., Sinopec Safety Engineering Research Institute Co., Ltd. The main drafters of this document are. Gao Keli, Shao Xianjun, Bi Jiangang, Yang Yong, Wu Xutao, Zhang Jianding, Wu Liyuan, Yu Qingang, Chang Wenzhi, He Ping, Wang Youyuan, Dong Ming, Chen Yufeng, Lin Ying, Li Zhigang, Yuan Shuai, Ma Yu, Cheng Yangchun, Ying

Gaoliang, Wang Yuanyuan, Yan Ye, Gao Qiang, Ren Yanming, Yang Bo, Wang Shiqiang, Li Chen, Cai Wei, Ye Huasong, Luo Bing, Yang Fan, Wang Shaohe, Xiao Wei, Cheng Dawei, Yu Mingzhi, Xiong Zhou, Gao Tingyu. General terms for condition maintenance of power equipment

1 Scope

GB/T 44380-2024 is the Chinese vocabulary of condition based maintenance for electrical power equipment. Chinese utilities have moved from time-based overhauls to maintenance driven by the measured condition of the plant, which is a change of practice that brought a large body of terminology with it, drawn from diagnostics, reliability engineering and asset management and used inconsistently across grid companies. The standard defines the terms: the maintenance strategies and their relationships, the condition monitoring and diagnostic terms, the defect, fault and failure terms with the distinctions between them, the condition assessment terms including the state quantities, the deduction factors and the health index by which Chinese utilities grade equipment, the risk and criticality terms, the maintenance decision, scope and interval terms, and the terms describing the data, the records and the systems that support all of it. It took effect on 23 August 2024.

This document defines common terms and definitions in the field of condition-based maintenance of power equipment. This document applies to the fields of science and production technology related to condition-based maintenance of power equipment.

2 Normative references

This document has no normative references.

3 Basic terminology

3.1 Equipment status condition A comprehensive representation of the equipment's ability to maintain safe and stable operation under operating conditions.

3.2 Maintenance Inspection, testing and repair work carried out to restore or maintain the normal operating capacity of equipment.

3.3 Maintenance mode The maintenance method is determined according to different constraints such as equipment reliability and risk.

Note. It is generally divided into regular maintenance, condition maintenance and fault maintenance.

3.4 Time-based maintenance A maintenance mode characterized by periodicity based on the statistical laws of equipment degradation and aging.

Note. The cycle is measured in time or frequency. [Source: GB/T 32574-2016, 3.6, modified]

3.5 A maintenance mode based on equipment status evaluation and comprehensive consideration of factors such as power system, environment and safety.

3.6 A maintenance mode carried out to restore or replace equipment functions after equipment failure.

3.7 Condition detection The process of obtaining data related to device status information.

Note. Includes patrol inspection, live detection, online monitoring, power outage test, etc.

3.8 Condition information Various information related to equipment status evaluation is obtained after processing the equipment status data.