

ICS 03.100.30; 19.100
CCS J04



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

GB/Z 44526-2024

Non-destructive testing - Performance-based qualification

无损检测 操作能力鉴定

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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. This document is equivalent to ISO /TS 11774.2011 "Qualification of Nondestructive Testing Operational Capabilities". The document type is adjusted by ISO technical specifications. It has been integrated into my country's national standardization guiding technical document. 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 National Technical Committee for Standardization of Nondestructive Testing (SAC/TC 56). This document was drafted by: CRRC Qishuyan Rolling Stock Technology Research Institute Co., Ltd., Shanghai Materials Research Institute Co., Ltd., China National Accreditation Centre for Conformity

Assessment, Jiangsu Special Equipment Safety Supervision and Inspection Institute. The main drafters of this document are Wan Shengyun, Jiang Jiansheng, Pan Feng, Zheng Xiaokang, Ding Jie, Zhang Wenxian, Ma Xiangdong, Han Lina and Gu Xichen.
Non-destructive testing Operational capability assessment

1 Scope

GB/Z 44526-2024 addresses how NDT personnel are qualified, and it proposes a different basis from the traditional one. Conventional certification tests general knowledge of a method and awards a level in it, on the assumption that a certified technician can apply the method anywhere. Industry experience has repeatedly shown the assumption to be optimistic: detection depends on the specific component, the specific flaw type and the specific procedure, and a properly certified inspector can miss a flaw reliably when working on an application they were never assessed on. Performance-based qualification asks instead whether this person, using this procedure, on this kind of part, actually finds what is there - assessed by demonstration on representative specimens. This document provides for implementing documented procedures established under an operator capability qualification programme for non-destructive testing personnel and others in specified applications. As a GB/Z it is a guiding technical document. Under ICS 03.100.30 and 19.100 with CCS J04, it is written for NDT service providers, for the nuclear, aerospace and pressure equipment industries that already demand performance demonstration, and for certification bodies.

This document provides for the implementation of documented procedures established in accordance with the operator competency qualification program for nondestructive testing personnel, workers, and other personnel in specific nondestructive testing. Methods for evaluating process procedures and equipment. Implementation of this document requires collaboration between Industry Sector Committees (ISCs) and Qualification Bodies to ensure that specific implementation expectations are met. Effect. The assessment method described in this document is used to evaluate the candidate's ability to detect and assess critical discontinuities. The ISC determines that the capability to detect and assess critical discontinuities is equivalent based on the capabilities specified in the operational capability qualification plan. This document establishes guidelines for assisting individuals to sit for examinations based on operational competency accreditation schemes. Second Party (Employer-Based) Accreditation and Recognition (e.g. reference to ANSI/ASNT CP189[3]), or third-party certification (e.g. reference to ISO 9712[1] or EN 473[2]) and subsequent on-the-job training. training and does not provide the required confidence for safety-critical testing. This document applies to specific applications performed in accordance with documented procedures established in an operational capability qualification program.

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. in this document. ISO /

IEC 17024 Conformity assessment - General requirements for certification bodies of conformity assessment personnel (for bodies operating certification of persons)

GB/T 27024-2014 General requirements for certification bodies for conformity assessment personnel (ISO / IEC 17024:2012, IDT)

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Candidate An individual who meets all prerequisites for the accreditation document and has obtained qualifications in accordance with the accreditation procedures.

Note. The accreditation document is a description of the accreditation system covering all applicable conditions agreed upon by the parties when determining qualifications.

3.2 Certification Body A body that manages certification programs in accordance with this document and complies with the requirements of ISO /IEC 17024.

3.3 Employer The legal entity where the candidate or qualified individual regularly works.

3.4 essential parameter Nondestructive testing methods, techniques, components, and parameters of the defects to be detected or characterized.