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

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Welding procedures qualification for overlay welding

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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 of Standardization Documents" Drafting.

This document uses the redrafting method to amend and adopt ISO 15614-7:2016 "Metal Material Welding Procedures and Evaluation of Welding Procedures for Qualification"

Fixed test part 7. surfacing welding.

Compared with ISO 15614-7:2016, the structure of this document has been adjusted. ISO 15614-7:2016 Appendix A has been adjusted to Appendix C.

Compared with ISO 15614-7:2016, this document has technical differences.

The position is marked with a vertical single line (|). A list of the corresponding technical differences and their reasons is given in Appendix A.

This document has also made the following editorial changes.

---Modified the standard name;

--- 6.1.3 added a note to explain the definition of the transition layer;

---Informative Appendix B "Steel Classification Guide" has been added;

---Added references GB/T 18591, GB/T 19869.1 and ISO /T R15608.

1 Scope

This document specifies the test method for surfacing welding procedure qualification.

This document is applicable to processes such as arc welding, gas welding, and electroslag welding.

Note. The transition layer surfacing between dissimilar materials is also considered to comply with GB/T 19869.1 welding procedure qualification requirements.

2 Normative references

The content of the following documents constitutes an indispensable clause of this document through normative references in the text. Among them, dated quotations

Only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

This document.

GB/T 2653 Bend test method for welded joints (GB/T 2653-2008, ISO 5173..2000, IDT)

GB/T 2654 Welded joint hardness test method (GB/T 2654-2008, ISO 9015-1.2001, IDT)

GB/T 18851.1 Non-destructive testing Penetrant testing Part 1.General rules (GB/T 18851.1-2012, ISO 3452-1.2008, IDT)

GB/T 19866 Welding procedure specification and general principles of qualification (GB/T 19866-2005, ISO 15607.2003, IDT)

GB/T 19867.1 Arc welding procedure specification (GB/T 19867.1-2005, ISO 15609-1.2004, IDT)

GB/T 19867.2 Gas welding procedure specification (GB/T 19867.2-2008, ISO 15609-2.2001, IDT)

GB/T 19867.3 Electron beam welding procedure specification (GB/T 19867.3-2008, ISO 15609-3.2004, IDT)

GB/T 19867.4 Laser welding procedure specification (GB/T 19867.4-2008, ISO 15609-4.2004, IDT)

GB/T 26951 Non-destructive testing of welds and magnetic particle testing (GB/T 26951-2011, ISO 17638.2003, MOD)

GB/T 26952 Weld non-destructive testing Weld magnetic particle inspection acceptance level (GB/T 26952-2011, ISO 23278.2006, MOD)

GB/T 26953 Weld non-destructive testing Weld penetration testing acceptance level (GB/T 26953-2011, ISO 23277.2006, MOD)

GB/T 26955 Destructive test of welds of metallic materials. Macro and micro inspection of welds (GB/T 26955-2011, ISO 17639.2003, MOD)

GB/T 32259 Non-destructive testing of welds Visual inspection of welded joints (GB/T 32259-2015, ISO 17637..2003, MOD)

GB/T 36037 Flux for submerged arc welding and electroslag welding (GB/T 36037-2018, ISO 14174.2012, MOD)

GB/T 39255 Shielding gas for welding and cutting (GB/T 39255-2020, ISO 14175.2008, MOD)

ISO 17405 Non-destructive testing, ultrasonic testing, welding, rolling and explosive composite interface testing technology (Non-destructive testing-

Ultrasonic testing-Technique of testing claddings produced by welding, rolling and explosion)

ISO /T R18491 Welding and related process welding energy measurement guide
(Welding and allied processes-

Guidelines for measurement of welding energies)

ISO /T R25901 (all parts) Welding and related processes-Vocabulary

3 Terms and definitions

The following terms and definitions defined in GB/T 19866 and ISO /T R25901 (all parts) apply to this document.