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

GB/T 37183-2023

Replacing GB/T 37183-2018

Corrosion control engineering life cycle - Risk assessment

腐蚀控制工程全生命周期 风险评估

(English Translation)

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Table of Contents

1 Scope	1
2 Normative references	1
3 Terms and Definitions	1
4 General	2
4.1 Objective	2
4.2 Principle	2
5 Risk Assessment Procedure	2
5.1 General requirements	2
5.2 Risk identification	2
5.3 Risk Analysis	2
5.4 Risk Assessment	4
6 Quantitative Risk Analysis	5
Appendix A (informative) Corrosion control project life cycle risk assessment form	6
Appendix B (Informative) Risk Quantitative Analysis	14
Reference	15

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents" Drafting:

This document replaces GB/T 37183-2018 "Corrosion Control Engineering Life Cycle Risk Assessment" and is consistent with GB/T 37183-2018 in addition to structural adjustments and editorial changes, the main technical changes are as follows:

- a) Changed the scope (see Chapter 1, Chapter 1 of the:2018 edition);
- b) The referenced document GB/T 23694 has been deleted (see Chapter 3 of the:2018 edition);
- c) Some terms and definitions have been changed, the terms and definitions of "risk assessment" and "consequences" have been added (see 3.1, 3:5), and "corrosion risk" has been deleted:

"risk", "evaluation", "risk pre-evaluation", "risk acceptance evaluation", "risk status evaluation", "economic and risk evaluation", "mitigation", "risk evaluation" the terms and definitions of "valuation agency", "risk assessment personnel", "qualitative evaluation

method", "semi-quantitative evaluation method" and "quantitative evaluation method" are revised:

Definition of the terms "risk assessment" and "risk identification" risk analysis (see Chapter 3, 3:1, 3:2, 3:3, 3:4, 3:5,:2018 edition) 3:6, 3:7, 3:8, 3:9, 3:10, 3:11, 3:12, 3:13, 3:14, 3:15);

d) Added "principles" provisions and deleted "evaluation principle basis", "evaluation content basis" and "evaluation result basis" (see Chapter 4,:2018 4:2, 4:3, 4:4 of the annual version);

e) Changed the content of "Risk Assessment Procedure", added "General Requirements", "Risk Identification", "Risk Analysis" and "Risk Assessment", and refined content, emphasizing the requirements for risk analysis from all risk factors (see 5.1, 5:2, 5:3, 5:4, 5:4:3, Chapter 7 of the:2018 edition chapter);

f) Added the requirement of "quantitative risk analysis" (see Chapter 6);

g) Change the normative appendix "Risk Assessment Agency Qualification Application and Review Procedure Chart" to the informative appendix "Corrosion Control Engineering Whole Life" Cycle Risk Assessment Form" (see Appendix A, Appendix A of the:2018 version);

h) Change the normative appendix "Risk Assessment Business Classification" to the informative appendix "Risk Quantitative Analysis" (see Appendix B,:2018 version Appendix B);

i) "Objectives", "Management Requirements", "Risk Assessment Contents", "Report Format", "Risk Prevention and Control (Emergency, Plans)" and "Supervision and Inspection" have been deleted:

"Communication and Recording", "Information Management", "Risk Assessment Process Block Diagram" and "Risk Assessment Report Format" (see Chapter 5 of the:2018 edition, Chapter 6, Chapter 8, 9:3, Chapter 10, Chapter 11, Chapter 12, Chapter 13, Appendix C, Appendix D):

This document is equivalent to ISO 23222:2020 "Corrosion Control Engineering Life Cycle Risk Assessment":

Please note that some content in this document may be subject to patents: The publisher of this document assumes no responsibility for identifying patents:

1 Scope

This document specifies general requirements for risk assessment throughout the life cycle of corrosion control projects:

This document is applicable to risk assessment work for all types of corrosion control

works:

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text: Among them, the dated quotations for undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document:

assessment)

3 Terms and definitions

The following terms and definitions apply to this document:

risk assessment risk assessment the whole process of risk identification (3:2), risk analysis (3:3), and risk evaluation (3:4):

risk identification risk identification the process of discovering, identifying and describing all corrosion risk factors throughout the life cycle of a corrosion control project:

risk analysis risk analysis the process of analyzing the nature and extent of corrosion risks:

Note: Risk analysis is the basis of risk assessment (3:1):

risk evaluation risk evaluation Compare the results of the risk analysis (3:3) and summarize the traceability and supporting documents to determine the impact of each factor in the entire life cycle of the corrosion control project:

Corrosion risk and whether the degree of corrosion is acceptable:

consequence consequence the result of an event's impact on a target:

Note 1: The consequences can be certain or uncertain; the impact on the target can be positive or negative; it can be direct or it's indirect:

Note 2: Consequences can be expressed qualitatively or quantitatively:

Note 3: Any consequences may escalate through chain reactions and cumulative effects:

[Source: GB/T 24353-2022,3:6]